DOUBLE COHORT STUDY

PHASE 4 REPORT

for the

ONTARIO MINISTRY OF EDUCATION

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Double Cohort Study: Phase 4

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EXECUTIVE SUMMARY

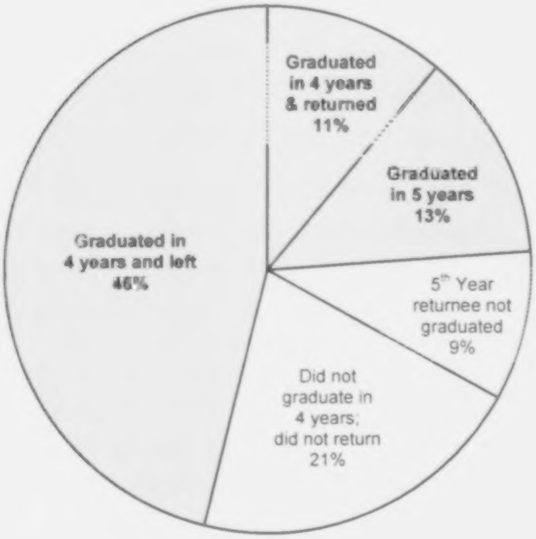
Phase 4 of the Double Cohort Study, conducted between 2003-05, completes the four studies in the series. Phases 1, 2 and 3 were based on information collected during the 2000-01, 2001-02 and 2002-03 school years, respectively. The goals of the Double Cohort Study were to develop projections of student application rates to Ontario colleges and universities for the double cohort year (2003-04) and ensuing years, and to examine the implementation of the Reorganized Program in Ontario secondary schools with regard to impact on student progress to graduation. Phase 4 was designed to examine the effect of the double cohort and the Reorganized Program on future college and university enrolments, and to study in depth the factors affecting student progress and secondary school graduation rates over the first five cohorts of the Reorganized Program.

Sources of information for Phase 4 of the Double Cohort Study include the following: 2003, 2004 and 2005 college and university student application information and 2003 and 2004 registration information from the Ontario College Application Services and the Ontario Universities' Application Centre; 1999-2000 to 2003-04 student transcript information for students across the province from the Ministry of Education; questionnaires administered in spring 2004 to students in Grade 12 and Year 5 from the school sample of 150 schools (including an additional sample of French schools) drawn in Phase 1; communication with key informants (e.g., directors, principals, guidance counsellors); 2003-04 school calendars and master timetables from 92 schools and relevant research. The following sections include major findings of the study and recommendations, where appropriate.

Ontario Secondary School Graduation Rates

The four-year graduation rate for the first cohort of the Reorganized Program is approximately 57 percent of the base Grade 9 enrolment four years before (see Figure 1). The four-year graduation rate improves to about 59 percent for the second cohort. These figures are well below those in other provinces (e.g., British Columbia: 72%, New Brunswick: 83%, and Nova Scotia: 82%).

Figure 1: First New Cohort in Reorganized Program – Graduation Rates*
After Four Years (1999-2000 to 2002-03) &
After Five Years (1999-2000 to 2003-04)



Four-year graduation rate = 57%; Five-year graduation rate = 70%

Approximately 33 percent of the base Grade 9 enrolment returned for a fifth year – one-third of whom had already completed graduation requirements. Slightly over 60 percent of the non-graduate returnees completed their graduation requirements by the end of the fifth year.

Therefore, the five-year graduation rate (including four-year graduates) for the first cohort is 57 plus 13 or 70 percent.

Not only is the four-year graduation rate well below the rates in other provinces but also the five-year graduation rate is well below the Ontario rate before the Reorganized Program was introduced in 1999 (70% vs 78%).

Student achievement in Grades 9 and 10 for the 2nd, 3rd, 4th and 5th cohorts indicates that there will be a slight improvement in graduation rates in each succeeding year. However, even under the best of circumstances, four-year graduation rates for the next few years will be substantially lower than those in the three provinces cited above.

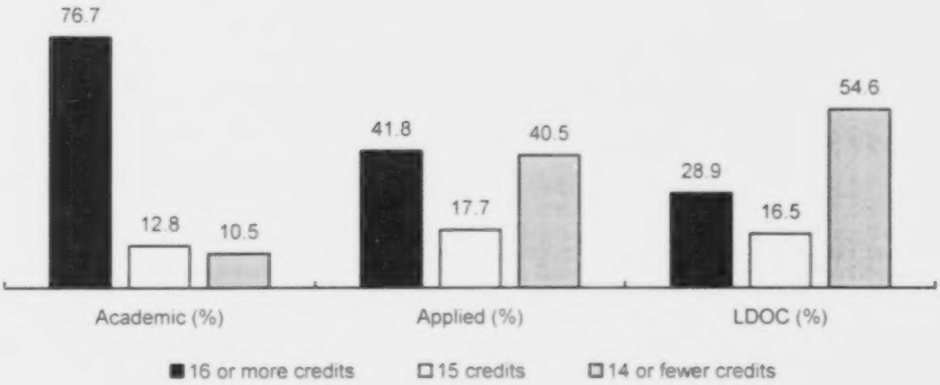
Factors Affecting Ontario Secondary School Graduation Rates

Credit Accumulation

Credit loss in required courses is the biggest factor affecting graduation rates. Relatively high failure rates (12 to 20%) in most Grade 9 and 10 Applied courses as well as the absorption of most of the credit loss occurring in Grade 9 and 10 Open courses by students taking mostly Applied courses makes progress to graduation difficult for those students.

In order to illustrate differences in credit accumulation by type of courses taken by students, Figure 2 presents two years of credit accumulation (up to the end of Grade 10) by type of core courses taken by the fourth cohort in the Reorganized Program.

Figure 2: Credit Accumulation by Type of Core Courses Taken* (% Grade 10 Students; 2003-04)



* For the first two sets of core courses, all three were taken as Academic or Applied (English or French in French schools, Mathematics and Science); for the last set, at least one of the three core courses was taken as a Locally Developed Optional Credit course (LDOC).

Over three-quarters of the students whose core courses were Academic (English or French in French schools, Mathematics and Science) obtained at least 16 credits after two years of secondary school in 2003-04; however, only 41.8 percent of the students whose core courses were Applied and 28.9 percent of those whose core courses were Locally Developed Compulsory Credit courses[1] had done so. The proportions of students in each of the three groups who had achieved 14 or fewer credits were markedly different (10.5% - the group enrolled in the three Academic courses; 40.5% - in the three Applied courses; and 54.6% - in LDOC). The large gap in credit accumulation by the end of Grade 10 between those taking Applied and those taking Academic courses is exacerbated by higher failure rates in Grades 11 and 12 Workplace- and College-preparation courses compared to University-preparation courses.

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[1] Locally Developed Optional Credit courses (in Grade 10) were called Essentials at the time of this study.

For the first four years of the Reorganized Program, locally developed English, Mathematics and Science courses could be taken to meet Grade 9 compulsory credit requirements for the diploma; however, even though locally developed English, Mathematics and Science courses could be taken in Grade 10, they did not fulfill compulsory credit requirements for the diploma – but they did fulfill optional credit requirements for the diploma. This policy changed for 2004-05 and additional courses were added to the Locally Developed Compulsory Credit courses (LDCC) group. Despite recent programmatic and course revisions, students who take Locally Developed Compulsory Credit courses in Grade 9 will continue to be at risk of not graduating unless the Grade 9 and 10 courses are redesigned to be more consistent with their needs and Workplace-preparation courses in Grades 11 and 12 are targeted to more realistic vocational goals.

Course Enrolments

The decline in the proportion of students taking Academic courses, ranging from 3 to 7 percent over the first four cohorts of the Reorganized Program (e.g., 69.8% to 62.7% in Grade 9 Academic Mathematics), increased the proportion of students in Applied and Locally Developed Compulsory Credit courses where failure rates are higher, thereby reducing the impact of improved course success rates in these courses on credit accumulation.

Summer School

About one-eighth of the students at all grade levels take summer school courses, mainly for the purpose of making up lost credits.

Projecting University and College Enrolments

The size of the eighteen-year-old cohort from which the majority of students go directly from secondary school to college or university is presented in Table 1 for 2003 to 2013.

Table 1: Age 18 Cohort (2003-2013)

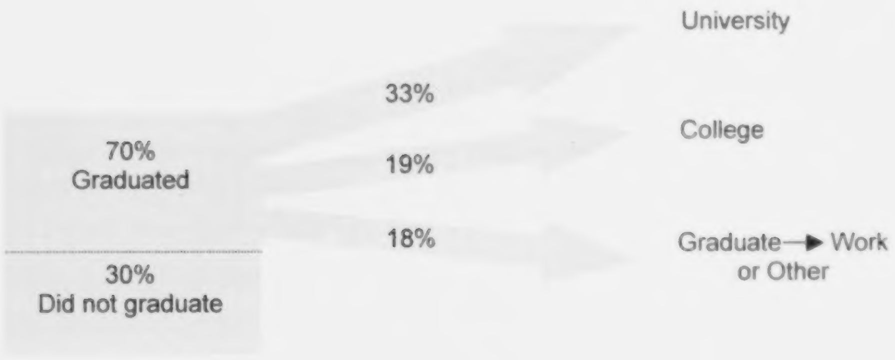
Year	Students	Year	Students
2003	157,690	2009	161,230
2004	157,875	2010	159,440
2005	155,650	2011	156,360
2006	153,230	2012	153,065
2007	156,575	2013	153,710
2008	162,160		

Source: Adapted from Statistics Canada 2001 Census

Growth in the eighteen-year-old cohort peaks at 162,160 in 2008 and then begins to fall. The overall variation in the age cohort size for the next few years should not substantially affect post-secondary applications.

Figure 3 illustrates the post-secondary destinations of the first cohort of students in the Reorganized Program, combining four- and five-year graduates. The increase in the proportion of the base Grade 9 secondary school enrolment that registered in university four or five years later compared to that in the pre-Reorganized Program period is quite pronounced (27 to 33%). The 2005-06 applicant rates and potentially available university spaces indicate that similar numbers of university registrants will be sustained for the next few years, perhaps with a slight increase associated with the slow but steady increase in secondary school graduation rates.

Figure 3: Destinations of Students in the First Cohort of the Reorganized Program* After Five Years (1999-00 to Fall 2004)



*Percentage estimates based on Grade 9 enrolment (1999-2000)

The proportion of students in the direct-from-secondary-school-to-college group is slightly smaller than the proportions observed in the past, and there is little evidence to suggest that there will be significant growth in the near future.

In comparison with the pre-Reorganized Program period and based on the progress of the first cohort through the Reorganized Program, more students will attend university, slightly fewer will attend college and far fewer students will graduate.

University Applicants – Grade 12 Courses

Over 60 percent of the applicants to Ontario universities for the 2004-05 school year took five or six University-preparation courses. The distribution of University- and University/College-preparation courses on the transcripts of first-year university applicants is summarized in Table 2.

Table 2: Ratio of University to University/College Courses: University Applicants' Transcripts (%; 2003-04)

Grade 12 Course Ratio	% University Applicants
6 University (U) courses	27.7
5 University (U) courses & 1 University/College (M) course	36.9
4 University (U) courses & 2 University/College (M) courses	24.1
3 University (U) courses & 3 University/College (M) courses	8.9
1 to 2 University (U) courses & 4 to 5 University/College (M) courses	2.4

Since students taking University/College-preparation courses in Grades 11 and 12 may have different post-secondary educational aspirations (either to go to college or to university), those students in the courses who are eligible to attend university usually obtain higher marks. This mix of students in University/College-preparation courses has the effect of increasing opportunities for university admission for some and decreasing the size of the college pool.

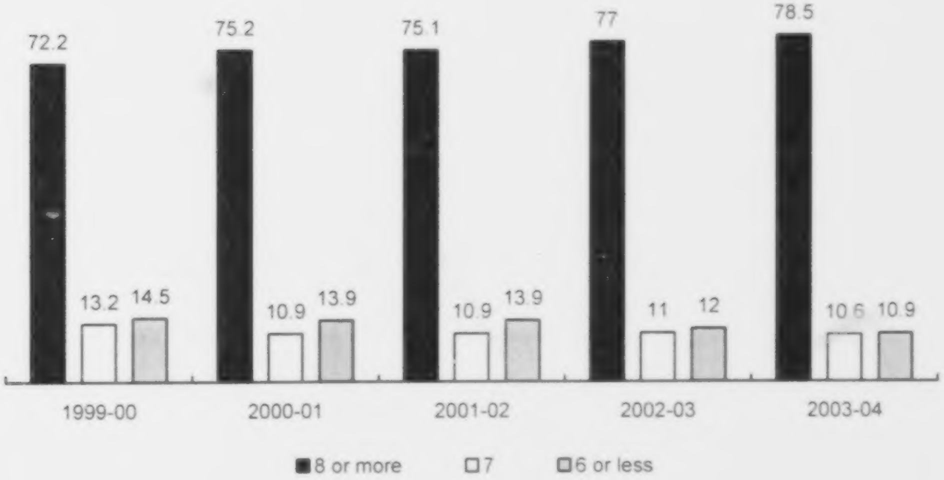
College Applicants – Grade 12 Courses

Slightly less than half of the students who applied to college for the 2004-05 school year took a program of University-preparation courses when they were in Grade 12. Of the remaining college applicants, not counting Grade 12 College-Preparation English, only four College-preparation courses appeared in the top 16 of Grade 12 courses appearing on their transcripts. Very few students enrol in a College-preparation sequence of courses while in secondary school. The number of schools offering the recommended Mathematics course for college technology programs (MCT4C) and the secondary school enrolments in that course are notably small; consequently, the course does not appear on college applicants' transcripts as often as expected. The introduction of College courses into Grades 11 and 12 of the secondary school curriculum has not had the desired affect of facilitating the transition of students from secondary school to college.

Student Progress

There has been a slow but steady growth over the past five years of the Reorganized Program in the proportion of students successfully completing 8 courses in Grade 9 (from 72.2 to 78.1%; see Figure 4).

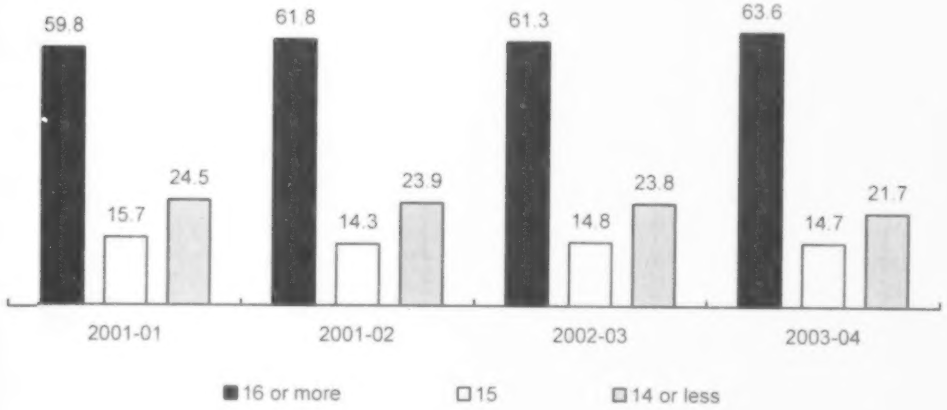
Figure 4: Credit Accumulation - Grade 9 (5 Cohorts)



* This analysis is based on data from Information & Management Group, Ontario Ministry of Education.

The pattern of improving credit accumulation rates in Grade 10 from the first to the fourth cohort in the Reorganized Program is similar to that of Grade 9 (see Figure 5). Nevertheless, over 36 percent of students were one or more credits behind in 2003-04.

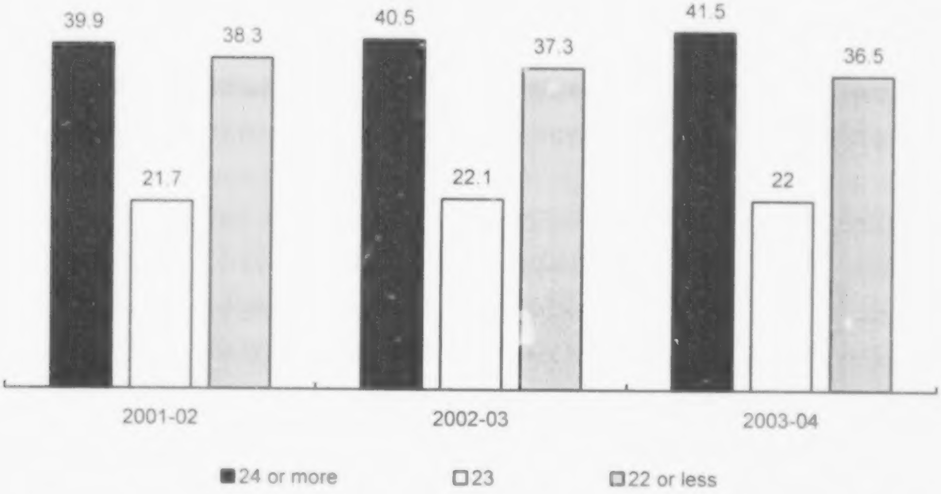
Figure 5: Credit Accumulation - Grade 10 (4 Cohorts)



* This analysis is based on data from Information & Management Group, Ontario Ministry of Education.

Figure 6 presents three years of credit accumulation information for the first three cohorts in the Reorganized Program.

Figure 6: Credit Accumulation - Grade 11 (3 Cohorts)*



* This analysis is based on data from Information & Management Group, Ontario Ministry of Education.

The proportion of students obtaining 24 credits or more over the three years slightly increased, and, correspondingly, the proportion obtaining 22 or fewer credits slightly declined. These data indicate that there will be a slight increase in four-year graduation rates for the third cohort in the Reorganized Program.

Course Achievement

In most courses failure rates have declined since the first cohort of the Reorganized Program. The cumulative impact of improved course success rates on four-year graduation rates should be 5 to 8 percent for the fifth cohort compared to that of the first cohort.

Courses exist in which there is little evidence that learning has taken place (e.g., Grade 9 Applied Mathematics – see Figure 7).

Figure 7: Mathematics Mark Distributions – MFM1P (Grade 9 Applied; 2002-03)

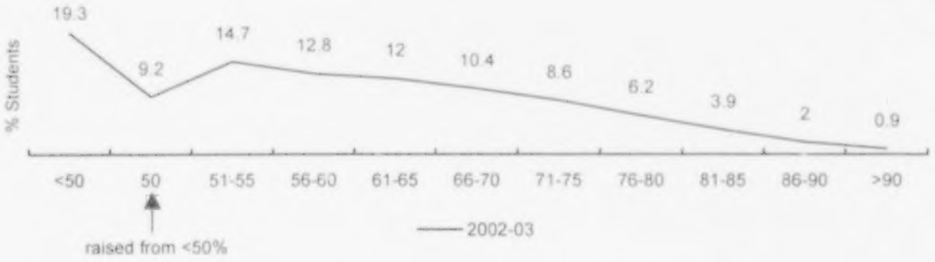


Figure 7 shows that in this Mathematics course, the majority of students obtained failing or near failing grades and very few students obtained marks over 75 percent. Courses in which this pattern of low achievement occurs can create unhealthy learning environments that overflow into other classrooms and adversely affect student motivation.

Students At Risk

Enrolment in particular courses or a single failure in any course dramatically reduces the likelihood of a student graduating in four years. For example, only 14.6 percent of students from the first cohort who took any Locally Developed Compulsory Credit courses in Grade 9 completed 30 credits in four years; only 3.2 percent of students from the first cohort who had failed Grade 9 Applied English or Mathematics completed 30 credits in four years; and, only 15.8 percent of students from the first cohort who had failed one Grade 9 course completed 30 credits in four years.

In order to improve the likelihood of graduation for students at risk: (1) remediation must begin during the first semester of Grade 9; (2) opportunities for 'credit recovery' should be made available; and, (3) most importantly, courses should be more closely tailored to students' abilities and aspirations.

Course Offerings and Enrolments

There was evidence of a great deal of variability across schools in the criteria used to select course offerings from the over 160 courses that could be offered in Grades 11 and 12. Staffing issues, low enrolments and low priority assigned to some courses typically limited the offering of Workplace- and College-preparation sequences of courses. Enrolments in Grades 11 and 12 Workplace-preparation courses were particularly low, and many schools did not even make

Workplace-preparation courses available to students in the core areas of English, Mathematics and Science.

Not only do few schools offer College-preparation courses in most subject areas but also the proportions of students who enrol in them are relatively small, making graduation by students with a college-oriented sequence of courses virtually impossible in most schools. A number of Business and Technology courses have almost no provincial enrolments (e.g., TPT4C Grade 12 College-preparation Medical Technologies, BDP3O Grade 11 Open The Enterprising Person, and BAN4E Grade 12 Workplace-preparation Accounting for a Small Business).

To illustrate the problems that schools face in deciding which courses will be offered: (1) there are 48 Canadian and World Studies and Social Sciences and the Humanities courses, but only eight of these were offered in more than 70 percent of the schools (these courses are prominent on the transcripts of college applicants); (2) enrolments are consistently low in Grades 11 and 12 Open courses in The Arts, and courses are typically blended with University/College-preparation Arts courses for scheduling purposes; and, (3) the two Grade 12 College-preparation Mathematics courses (MCT4C and MAP4C) split the total potential enrolment placing both at risk of not being offered.

There is a clear need for the Ministry of Education to establish priorities in the number and type of Grades 11 and 12 course to be offered at school and/or school board levels. Courses should be reviewed for viability and should be consolidated, where appropriate, in order to facilitate more responsive timetabling (e.g., combine MCT4C – Mathematics for College Technology and MAP4C – College and Apprenticeship Mathematics into one College-preparation Mathematics course). All students should have access to courses that will prepare them for their future.

Programs

Cooperative Education

Cooperative Education participation rates for Grade 12 students have declined over the past three years from 22.6 to 17.3 percent and to 16.7 percent, and notably fewer university-bound students have been taking Cooperative Education. Some of this decline appears to be balanced off through the increased participation rates of 5th Year returnees. Female students have higher participation rates and are more likely to take Cooperative Education for career-related reasons.

Ontario Youth Apprenticeship Program (OYAP)

The proportions of students who participate in OYAP are very small (1.9% in Grade 12 and 2.7% in 5th Year). Only 30 percent of Grade 12 and 5th Year OYAP participants plan on entering apprenticeship programs after graduation. This program is not meeting its goal of attracting significant numbers of secondary school students into the trades.

Community Involvement

While the debate continues about the benefits of unstructured, mandatory volunteerism, students appear to have little difficulty in meeting the Community Involvement requirement of forty hours. By spring of both 2003 and 2004, almost three-quarters of the Grade 12 students had completed the forty-hour requirement.

Teacher-Adviser Program (TAP)

The proportions of Grade 12 students who reported that the TAP was at least somewhat important in planning for post-secondary programs and careers was relatively small for those aspiring to attend university (17%) but higher for those planning on college or planning on going directly into the work world (30%). Nevertheless, in light of other influences that students reported as being more important in making their educational and career plans (e.g., individual teachers, guidance counsellors, parents and other role models), program management problems and delivery variability from school to school, the viability of the program is questionable.

Franco-Ontarian Students

The following findings are particularly relevant with regard to Franco-Ontarian students:

1. Course success rates tend to be higher in the French schools than they were in the English schools, with few exceptions; e.g., the same success rates for MCR3U - Function and Relations: Grade 11 University-preparation Mathematics in 2003-04.
2. Students who took Academic courses in Grades 9 and 10 had much higher success rates than those enrolled in Applied courses.
3. Over the first five years of the Reorganized Program, French schools showed an increase in success rates in almost all academic core courses.
4. Since many of the French schools have relatively small enrolments, they have difficulty offering a full range of courses, especially Grade 11 and 12 College- and Workplace-preparation courses.

5. Secondary school graduation rates after four years were much higher in the French schools than English schools.

6. In the double cohort year (2003-04), the numbers of Francophone applicants to Ontario universities sharply increased, but subsequently decreased to slightly greater numbers of applicants than in the years prior to the Reorganized Program. Only 64 percent of the Francophone applicants to Ontario universities in 2004-05 selected a program taught in French.

7. There was no significant increase in Francophone applicants to Ontario Colleges of Applied Arts and Technology in the double cohort year (2003-04), but the numbers of Francophone applicants decreased sharply in 2004-05.

Concluding Comments

Provinces with higher graduation rates than Ontario typically do not start formal credit accumulation for graduation until Grade 10. In order to attain graduation rates similar to those in provinces with the highest rates (i.e., a four-year graduation rate of over 80%) while remaining within the framework of the Reorganized Program, individual course success rates in Ontario secondary schools would have to improve.

In most schools, the school-to-work and school-to-college sequences of courses have not proven to be successful, in large part because the number of students selecting the courses is too small to justify offering them. Even in Grade 12, over half of the students continue to take a university-oriented program, requiring schools to offer primarily University- and University/College-preparation courses in Grades 11 and 12. Because they are labour intensive, many of the new initiatives designed to improve the school-to-work interface target small groups of students and may not be cost-effective. In order to establish an economically viable, critical mass of students, such programs are best coordinated at the school board level and offered as special programs in designated schools.

Rather than attempting to solve graduation rate deficiencies and ineffective Workplace- and College-preparation course sequences by reviewing and revising individual courses and overlaying a variety of new school-to-work programs, the Ministry of Education needs to conduct a systematic review of the structure and content of the Reorganized Program.

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Chapter I Introduction

A. Background

This report presents the findings from the fourth phase of the Double Cohort Study. Phases 1, 2 and 3 were conducted during the 2000-01, 2001-02 and 2002-03 school years respectively with the focus in the survey on Grades 10 and 11 students (Phase 1), Grades 11 and 12 students (Phase 2), and Grades 11, 12 and 5th Year (Phase 3). The findings from the first three phases have been integrated into this report.

Each phase of the study had two primary goals. The first goal was to develop projections of the application rates to Ontario colleges and universities for post-secondary enrolments in the double cohort year 2003-04 and in the ensuing years. The second goal was to examine the implementation of the Reorganized Program in Ontario secondary schools and determine its impact on student progress to graduation. More specifically the goals of the study were expressed as follows:

1. to provide information on the numbers of students that may apply to and register in universities and colleges in 2003 and in succeeding years;
2. to provide information on student course selection, progress and achievement in the Reorganized Program in Ontario secondary schools;
3. to compare student progress (credit accumulation) and achievement (marks in particular courses) in the last of the old cohorts of the previous program and the first and second new cohorts[1] in the Reorganized Program;
4. to identify factors influencing student progress in the Reorganized Program, including the role that summer school courses play;
5. to identify students' post-secondary plans and factors influencing student educational and career plans;
6. to examine work experience programming in the secondary schools;
7. to provide information on courses selected and enrolled in by Grades 11 and 12 students, and accessibility to courses;
8. to provide information on the Community Involvement requirement and the Teacher-Adviser Program, and;

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[1] The first new cohort began Grade 9 in the Reorganized Program in 1999-2000, and the second, third, fourth and fifth new cohorts, in 2000-2001, 2001-02, 2002-03 and 2003-04, respectively.

9. to provide information on the above with regard to francophone students, and to identify differences where they exist between francophone and Anglophone students.

The Reorganized Secondary School Program, announced in June 1997, was developed from the Government's comprehensive plan for education reform and launched in 1999 with the first cohort of Grade 9 students. The goals of the Reorganized Program can be briefly summarized as follows:

1. To improve student learning and academic achievement as well as graduation rates by means of:
    a. the introduction of a four-year instead of five-year program with a required 30 credits of 110 hours each to be completed for the Ontario Secondary School Diploma (OSSD);
    b. the development of new, rigorous curriculum in all subject areas with clearly expressed, general and specific expectations;
    c. the requirement of successful completion of a Literacy Test in Grade 10 (the piloting of this test, without counting towards the requirement for graduation, took place with the first new cohort in the Reorganized Program); and,
    d. increased support for students through the Teacher-Adviser Program and relevant guidance and career education programming.
2. To facilitate the transition of students to post-secondary destinations by means of:
    a. Grades 9 and 10 core courses called 'academic', with a focus on theory, and 'applied', with an emphasis on applications, as well as the provision for changing course types;
    b. the development of destination-related courses in Grades 11 and 12 focussing on university-preparation, college-preparation and workplace-preparation;
    c. the improvement of school-to-work programming, including Cooperative Education and the Ontario Youth Apprenticeship Program (OYAP); and,
    d. more focussed career counselling.

At the completion of data collection for this study, the Reorganized Program had been implemented for five complete years of Grade 9 students and two cohorts of students had experienced four years of secondary school in the new program. This study provides the opportunity not only to examine student achievement and progress toward graduation but also develop projections for college and university enrolments.

B. Research Team and Advisors

The research team consisted of Drs. Alan King, Wendy Warren, and Peter Chin, and Matthew King associated with the Social Program Evaluation Group at the Faculty of Education of Queen's University; Dr. Jean-Claude Boyer from Ottawa and l'Université du Québec à Hull; and Barry O'Connor, former Director of the Limestone District Board of Education. The research team has worked in collaboration with Ministry officials from the Secondary School Policy and Programs Branch, the Information Management Group (IMG), and the French Language Education Policy and Programs Branch (FLEPPB). Grant Clarke, Director of the Secondary School Policy and Programs Branch, had the major responsibility for project design and coordination. Mark Zielinski, also with the Branch, assisted with project coordination and was responsible for communication on the project. Patricia Smith, the IMG's Manager, coordinated the data collection, data entry and data processing for the Queen's team analysis with assistance from Howard Kim. Emmanuel Kwai-Pun, from the Ministry's data warehouse, worked directly with the research team preparing and refining data files. Sylvie Longo and colleagues from FLEPPB were involved in collaborating with the research team on the French instruments and data interpretation. Jamie Mackay, former Executive Director, and Ron Scriver, Director of Operations of the Ontario Universities' Application Centre (OUAC), and Greg Hughes, Director, and Catherine Bell, both of the Ontario College Application Services (OCAS), collaborated by having data files prepared for the research team.

An external advisory group, composed of secondary school principals, guidance counsellors and board administrators also provided periodic advice to the research team on questionnaire item development, course selection and accessibility concerns.

C. Sources of Information

Sources of information used for Phase 4 of the study were as follows: Grade 12 and 5th Year student surveys in a sample of schools; principal's questionnaire on the 5th Year returnees; Ministry of Education data files of marks, course enrolments, and credit accumulation; school calendars; students' course selection option sheets; communication with key informants; post-secondary application, confirmation and registration data; research studies and media reports; and other provinces' graduation rates. Each information source is described below.

1. Student Surveys in the Sample of Schools

A major component of the study was the survey follow up in 2003-04 of students who had been surveyed in the previous three phases of the study – the first of the new cohorts who were enrolled in secondary school in their fifth year, and the second new cohort in Grade 12. Again, in collaboration with Ministry advisors, the Queen's research team designed the Phase 4 two student survey instruments and followed the same methodology for collecting the data from the school sample selected to represent Ontario schools in Phase 1 of the study. That is, the Ministry had asked principals to oversee data collection in their schools with teachers administering the surveys in classes. The research team made recommendations to the IMG staff for entering the survey data into data files so that the data could be analyzed at Queen's University.

a. The Schools

Table 1.1 presents the participating schools and boards by region. The number of schools in the basic sample was 150. They were systematically selected within their boards and regions to represent the full range of school size and student socioeconomic backgrounds. In each phase of the research, some schools declined to participate, and the data from some schools were received too late to be included. The breakdown by school types in the basic sample for Phase 4 was as follows: 88 public schools (80 English; 8 French); 42 Roman Catholic Schools (29 English, 13 French) for a total of 130 schools – slightly fewer than in previous phases of the study.

Table 1.1: Basic Sample of Participating Surveyed Schools & School Boards, by Region

Region	Type		Schools				School Boards			
			Phase 1	Phase 2	Phase 3	Phase 4	Phase 1	Phase 2	Phase 3	Phase 4
North	Public	English	13	10	14	14	7	7	7	6
		French	2	2	3	2	1	1	1	1
	Catholic	English	2	2	2	2	2	2	2	2
		French	3	3	3	5	3	3	3	3
	Subtotal		**20**	**17**	**22**	**23**	**13**	**13**	**13**	**12**
South-East	Public	English	15	13	13	12	5	5	4	5
		French	2	3	2	3	1	1	1	1
	Catholic	English	4	4	5	5	2	3	4	4
		French	1	2	2	3	1	2	2	2
	Subtotal		**22**	**22**	**22**	**23**	**9**	**11**	**11**	**12**
South-West	Public	English	19	20	20	14	6	6	6	6
		French	-	-	-	-	-	-	-	-
	Catholic	English	6	6	7	6	5	5	5	5
		French	1	1	1	2	1	1	1	1
	Subtotal		**26**	**27**	**28**	**22**	**12**	**12**	**12**	**12**
Toronto (GTA)	Public	English	13	19	11	15	1	1	1	1
		French	-	1	-	-	-	1	-	-
	Catholic	English	7	8	11	7	1	1	1	1
		French	-	0	-	-	-	-	-	-
	Subtotal		**20**	**28**	**22**	**22**	**2**	**3**	**2**	**2**
Central Area	Public	English	32	26	28	25	11	11	10	11
		French	2	1	2	3	1	1	1	1
	Catholic	English	12	10	9	9	8	6	7	8
		French	2	2	2	3	1	1	1	1
	Subtotal		**48**	**39**	**41**	**40**	**21**	**19**	**19**	**21**
Total			**136**	**133**	**135**	**130**	**57**	**58**	**57**	**59**

In addition to the basic sample of 150 schools, special samples had been selected systematically in Phase 1 to represent particular groups (i.e., French language students, recent immigrant students, Aboriginal students, and students from rural communities). For the French analysis in Phase 3, the French school oversample (consisting of 8 schools) was used in conjunction with the 15 French schools in the basic sample for a total of 23 schools from the overall sample. In this Phase 4 report, the analysis is based on data from 21 of the French schools in total (i.e., two schools that participated in Phase 3 did not participate in Phase 4).

b. Student Respondents

The numbers of students who participated in the survey that was administered in all four phases are presented in Table 1.2. In the Phase 1 Report, those in Grade 10 were students in the first new cohort (n = 19,487 English; 879 French – basic sample), and those in Grade 11 were in the last of the cohorts in the previous OS:IS program (n =

18,106 English; 899 French – basic sample). In the Phase 2 Report, those in Grade 10 were students in the second new cohort (n = 18,664 English; 1,066 French – basic sample), those in Grade 11 were in the first new cohort (n = 17,830 English; 987 French – basic sample), and those in Grade 12 were in the last of the previous cohorts (n = 10,394 English; 855 French – basic sample). In Phase 3 Report, those in Grade 11 were students in the second new cohort (n = 17,403 English; 1,141 French – basic sample), those in Grade 12 were in the first new cohort (n = 15,444 English; 991 French – basic sample), and those in their 5th year were in the last of the previous cohorts (n = 7,218 English; 493 French – basic sample). In this Phase 4 Report, those in Grade 12 were students in the second new cohort (n = 13,604 English; 992 French – basic sample), and those in their 5th year were from the first new cohort (n = 2,687 English; 196 French – basic sample.) The total number of students from the basic sample for whom survey data were entered and processed in preparation for the Phase 1 Report was 39,371, for Phase 2, 49,796, for Phase 3, 42,690 and for Phase 4, 17,479.

Table 1.2: Survey Respondents (Phases 1, 2, 3 & 4)

Phase 1		**Phase 2**		**Phase 3**		**Phase 4**	
Grade	**Total n**	**Grade**	**Total n**	**Grade**	**Total n**	**Grade**	**Total n**
10 (1st new cohort)	20,366	10 (2nd new cohort)	19,730				
11 (old cohort)	19,005	11 (1st new cohort)	18,817	11 (2nd new cohort)	18,544		
		12 (old cohort)	11,249	12 (1st new cohort)	16,435	12 (2nd new cohort)	14,596
				5th Year (old cohort)	7,711	5th Year (1st new cohort	2,883
Total Students:	**39,371**	**Total Students:**	**49,796**	**Total Students:**	**42,690**	**Total Students:**	**17,479**

Proportions of females and males were very similar across the grades in the previous three phases and among Grade 12 students in Phase 4 (48% males, 51% females); however, proportionally more males than females were in Year 5 (61% males and 39% females). The augmented file used in Phase 1 for the Franco-Ontarian analysis included 2,572 students, 1,131 males and 1,441 females, in Phase 2, 3,284 students (counting those for whom some data were missing), 1,510 males and 1,727 females, in Phase 3, 3,694 students, 1,669 males and 2,017 females (8 students did not record their gender), and in Phase 4, 1,272 students, 600 males and 665 females.

The English and French Grade 12 and 5th Year survey instruments can be seen in Appendix A.

2. Ministry of Education Data Files: Marks Distributions, Course Enrolments, and Credit Accumulation

Over the course of this study, through an iterative process involving much interaction with the Ministry of Education's Information Management Group (IMG), procedures have been refined for identifying valid subsets of the student transcript data files received from schools. Subsets of the data were identified to facilitate reliable analyses for all five cohorts of students with the Reorganized Program. Some schools and students were removed from the analysis because their information was inconsistent or incomplete.

Information from IMG data files was used to develop marks distributions for five cohorts of Grade 9 students, four cohorts of Grade 10 students, three cohorts of Grade 11 students, and two cohorts of Grade 12 students in the core courses of English, Mathematics and Science, as well as History and Geography. Grade 9 and 10 students were compared on their achievement in English, Mathematics and Science courses by the type of courses they took. The analysis also enabled an examination of changes that had taken place in marks distributions over the first years of implementation of the Reorganized Program.

Also from the provincial data files of student achievement, we analyzed the credit accumulation of five sets of students from the first, second, third, fourth and fifth cohorts in the Reorganized Program. The first cohort had started Grade 9 in the new program in 1999-2000, the second cohort, in 2000-01, the third cohort, in 2001-02, the fourth, in 2002-03, and the fifth cohort had started Grade 9 in 2003-04. Four-year and five-year graduation figures were obtained using the graduation code on the IMG data file.

To answer specific research questions, student questionnaire data were integrated with the IMG data files. For example, the integration of data from multiple files enabled us to examine course achievement and credit accumulation in terms of students' post-secondary education plans. All course enrolments by year were developed using student transcript information from the basic IMG data files.

3. Course Selection Information from School Timetables

For Phase 4, 92 English schools and 8 French schools responded to the Ministry of Education request to all schools in the basic sample to provide their first and second semester timetables, course enrolments, and school calendars. The school calendars provided the documentation to students to prepare them for course selection. The data were employed to examine variability in course offerings and patterns of course delivery across the schools.

The analysis of the course calendars yielded information about: (1) the courses offered to students; (2) course and program sequences; and (3) school-to-work programming (i.e., Cooperative Education and Ontario Youth Apprenticeship Program or OYAP).

4. Post-Secondary Application and Registration Data

OUAC and OCAS provided the information used to analyze university and college 2003-04 application and registration statistics, and 2004-05 and 2005-06 application statistics. In Phase 1, five years of data (1996 to 2000) were obtained from OUAC, and four years from OCAS (1996 to 1999), and data for the subsequent years were obtained from both sources for Phases 2, 3 and 4. Students' transcript information on their college and university application forms was used to identify course selection patterns during secondary school.

5. Communication with Key Informants

Key informants included representatives from OUAC, OCAS, selected universities and colleges, the Association of Colleges of Applied Arts and Technology (ACAATO), and secondary school guidance counsellors, principals and superintendents. Information was sought to verify statistics received from OUAC and OCAS, to understand more about the universities and college enrolments in the wake of the double cohort, and to determine the impact of the Reorganized Program on secondary programs and policies.

6. Research Studies and Media Reports

Surveys, research papers, media reports and Ministry of Education memos and special committee reports (e.g., A Successful Pathway for All Students, Final Report of the At-Risk Working Group, January 2003) were reviewed for relevance to the research and, where appropriate, were incorporated into the report.

7. Graduation Rates from Other Provinces

Secondary school graduation rates were obtained from government sources in four provinces: Information and Technology Management of Alberta Education; the Information Department in the BC Ministry of Education; the Policy and Planning Branch in the New Brunswick Department of Education; and from the Statistics and Data Management Division in Nova Scotia's Department of Education.

D. Definition of Terms

The following definitions are used for the purposes of this report:

1. **Graduation rate** is defined as the proportion of students who obtained a secondary school graduation diploma (in four, five or six years) based on the total enrolment in the Grade 9 year in which they originally enrolled in secondary school. The term 'dropout rate' is very inexact; therefore, we suggest that it not be used when discussing the findings from this report.

2. **Locally Developed Courses** in Grades 9 and 10 were referred to as **Essentials** courses in the first three phases of this study, the term used by most school boards throughout the province. To be consistent, Essentials is the term used in this report to refer to Grade 9 and 10 Locally Developed English, Mathematics and Science courses. Locally Developed Courses (compulsory credit – LDCC, or optional credit – LDOC) are courses developed by school boards to meet educational needs that are not met by courses outlined in the curriculum policy documents and to provide students who are struggling to achieve their graduation requirements with greater choice. For the 2004-05 school year, students could earn up to six credits through a school board's LDCCs offered in English, Mathematics and Science in Grades 9 and 10. A school board may opt to offer an LDCC course in Grade 10 History instead of the one in Science and either course can also be offered as an LDOC. In addition, LDOCs can be developed in any

discipline in Grade 10. For the cohorts of students discussed in this study, LDCC courses were only offered in Grade 9 English, Mathematics and Science. The Essentials Grade 10 courses referred to in the text are LDOC courses.

3. The **Ministry of Education coding** for the Grade 9 academic and applied, and the Grades 11 and 12 open, university-preparation, college-preparation, university/college-preparation and workplace-preparation courses are as follows: Academic (D), Applied (P), Open (O), University (U), College (C), University/College (M) and Workplace (E). For example, the Grade 9 Academic English course is coded ENG1D and the Grade 11 University/College course Understanding Canadian Law is coded CLU3M.

   In this report, we refer to the Grades 11 and 12 university-preparation courses as 'University courses', college-preparation courses as 'College courses', university/college-preparation courses as 'University/College courses' and workplace-preparation courses as 'Workplace courses'.

E. Report Organization

This report is organized into seven chapters. Chapter II presents information on student achievement and progress toward graduation, including factors influencing progress, such as course enrolments, summer school and the Literacy Test requirement. Also in this chapter is a section on the fifth year student that includes reasons for returning, academic achievement, post-secondary plans, and summer school. Chapter III addresses course offerings and delivery aspects of the Reorganized Program's implementation in schools. Chapter IV presents information on educational issues; i.e., the Community Involvement Requirement, Teacher-Adviser Program (TAP), and the role that external factors and individuals play in students' educational and career planning. Chapter V presents information on school-to-work programming. Chapter VI describes changes in post-secondary education enrolments, age cohort projections, university and college enrolments, sources of students, and who goes to university and college, and projections of enrolments in both sets of institutions. Chapter VII presents student achievement and course enrolment information for francophone students and the results for students involved in the survey from the French school sample. The findings are summarized in the text in the form of tables and figures, as appropriate.

Chapter II Student Achievement, Progress Toward Graduation & Destinations

A. Introduction

One of the goals of the Reorganized Secondary School Program, when initiated in 1999, was to increase the proportion of secondary school students graduating with an OSSD. The analysis presented in previous phases of this study indicated that this goal was unlikely to be attained because of substantial credit loss by students in Grades 9 and 10. In this fourth phase of the study, we have the advantage of being able to examine the credit accumulation of the first five cohorts of students who took courses in the new program – that is, findings from five cohorts at the end of Grade 9, four cohorts at the end of Grade 10, three cohorts at the end of Grade 11 and two cohorts at the end of Grade 12. One would expect that, since the initial years of the Reorganized Program, there would be an improvement in student progress toward graduation not only because teachers have acquired more experience teaching the new curriculum but also because students would have been better prepared during elementary school and they would have adjusted to the increased rigor required in each of their courses.

In this chapter, we first discuss graduation rates in Ontario and in other provinces, factors affecting graduation and student progress such as credit accumulation, course enrolments, student achievement by course, summer school and the Literacy Test, then we project future graduation rates. Finally, we present information about the 5th Year student that includes reasons for returning for a fifth year, credit accumulation and post-secondary plans.

B. Graduation Rates (Ontario and Other Provinces)

As explained in Chapter I, for purposes of this study, graduation rate is the term used to refer to the proportion of students who obtained a secondary school graduation diploma based on the total enrolment in the Grade 9 year in which they originally enrolled in secondary school. In order to compare graduation rates in Ontario's Reorganized Program with those previously attained and those in other provinces, we use two measures, those who graduate after four years and those who graduate after four or five years. Since some students return to school for a sixth year or graduate later through some other medium, the term 'graduation rate' used here refers to graduation within four or five years. The term 'dropout rate' can be misleading and is clearly inappropriate for the following analysis.

It is not our intent to answer the questions: What are realistic graduation rates for Ontario within the present Reorganized Program and how can they be obtained? However, it is useful to examine current Ontario Secondary School graduation rates in comparison with those from other settings. To understand the graduation rate issue, we first consider the graduation rates of other provinces in comparison to that of Ontario, then examine the factors affecting Ontario student credit accumulation and ultimately graduation rates – that is, course success rates, changes in the proportions of students taking particular courses by type, course availability and selection, and patterns of credit accumulation.

How comparable are the Ontario graduation rates with those of other provinces that expect students to be able to graduate after Grade 12? Table 2.1 presents the Ontario graduation rates for the first cohort of the Reorganized Program in comparison with those for four other provinces – Alberta, British Columbia, New Brunswick and Nova Scotia.

Table 2.1: Secondary School Completion/Graduation Rates Four/Five Provinces (% Students: 2002-03)

Province	Grade 12	5 Years
Alberta[a]	67	n/a
British Columbia[b]	72	78
New Brunswick[c]	83	n/a
Nova Scotia[d]	82	n/a
Ontario	**57**	**70**

[a] http://www.learning.gov.ab.ca/k_12/completion (Barb Pederson, Coordinator, Information Reporting, Information and Technology Management, Alberta Education)

[b] Chris Hvid, Research Officer, Information Department, BC Ministry of Education

[c] http://www.gnb.ca/0000/stat-e.asp New Brunswick Department of Education (Kim Branch, Manager and Senior Policy Analyst, Policy and Planning Branch)

[d] 2003-04 Graduation and Return rates, Nova Scotia Department of Education (Ted Vaughan, Director, Statistics & Data Management Division)

The second new cohort of Ontario students has a slightly higher graduation rate than the first (see Table 2.2, p.18), but the improvement in graduation rates that will take place gradually over the next few years will still place Ontario well behind provinces such as Nova Scotia, New Brunswick and British Columbia. Even the five-year graduation rates for Ontario place it well back of the 78-79 percent graduation rate of the last two cohorts in the previous program.

C. Factors Affecting Graduation Rates/Credit Accumulation

In order to graduate with an OSSD (Ontario Secondary School Diploma), students are required to successfully complete 30 courses (including 18 required courses), 40 hours of Community Involvement, and the Ontario Secondary School Literacy Test (OSSLT) or its course equivalent (Ontario Secondary School Literacy Course or OSSLC). Students may obtain course credits prior to entering secondary school (in many school boards, Grade 8 students may take Grade 9 courses in a nearby secondary school) or outside of school (e.g., Music). The data were not available to be able to integrate Literacy Test achievement with credit accumulation data; consequently, we cannot determine the extent to which unsuccessful completion of this requirement has prevented students from obtaining an OSSD. The completion of the 40 hours of Community Involvement does not appear to present a barrier to graduation for students (see Chapter IV); therefore, it is not included as a factor. The following five factors that relate directly to student course credit accumulation are discussed on the following pages: (1) course success rates; (2) changes in the proportions of students taking particular course types; (3) summer school; (4) course availability and selection patterns; and (5) the impact of Open courses. Before examining the factors that affect the graduation rate, it is necessary to consider changes in the pattern of student progress since the inception of the Reorganized Program.

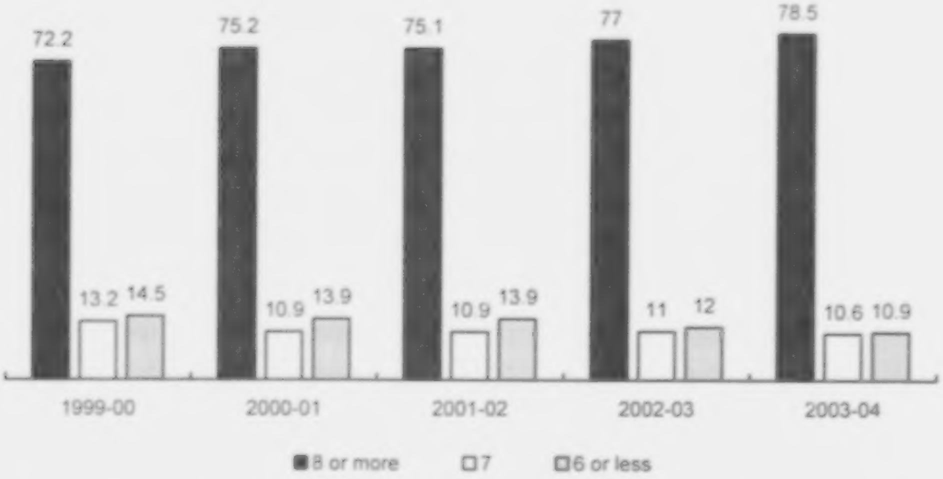
1. Credit Accumulation

In the Reorganized Program, students in Grades 9 and 10 can take Academic, Applied, Essentials courses and Open courses, but in Grades 11 and 12, students take mainly destination-based courses – University-, University/College-, College- and Workplace-preparation courses, as well as Open courses. The four phases of this Double Cohort Study have provided the opportunity to examine the credit accumulation of five cohorts of students when they were in Grade 9 in the Reorganized Program, four cohorts of students when in Grade 10, three cohorts in Grade 11 and two cohorts when in Grade 12. In the next four subsections, we present the number of credits accumulated by these cohorts of students and note changes over time that may contribute to higher graduation rates.

a. Five Years of Grade 9 Students in the Reorganized Program

Figure 2.1 presents the credits accumulated by five cohorts of students in the new program by the end of Grade 9 (ranging from those entering Grade 9 in 1999-00 to 2003-04).

Figure 2.1: Credit Accumulation - Grade 9 (5 Cohorts; 1999-00 to 2003-04)*



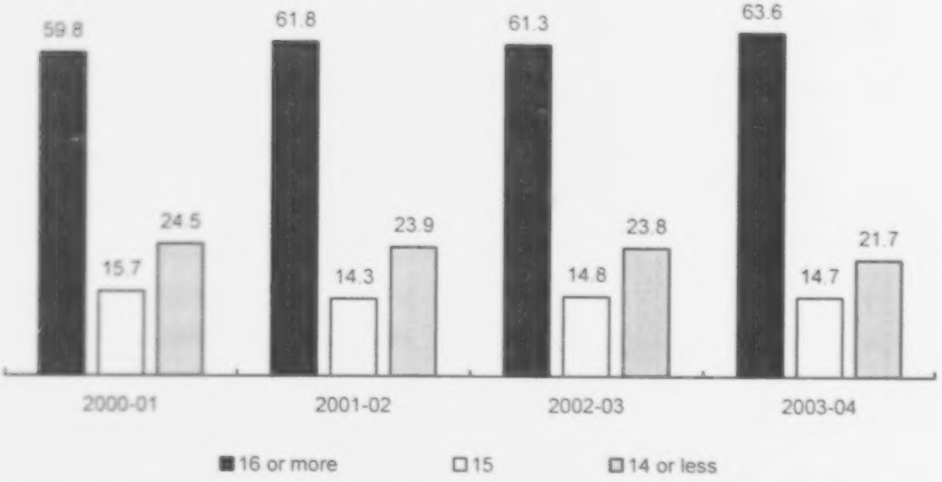
* This analysis is based on data from Information Management Group, Ontario Ministry of Education.

There is an encouraging year-by-year rise in the percentage of Grade 9 students from the first to the fifth cohorts in the Reorganized Program who had attained eight credits or more – from 72.2 in 1999-2000 to 78.5 percent in 2003-04. Over this period, the proportion of students obtaining six or fewer credits declined from 14.5 percent to 10.9 percent. Nevertheless, in 2003-04, over one-fifth (21.5%) of the students still failed at least one course.

b. Four Years of Grade 10 Students in the Reorganized Program

Figure 2.2 presents the credits accumulated by the first four cohorts in the new program by the end of Grade 10.

Figure 2.2: Credit Accumulation - Grade 10 (4 Cohorts; 2000-01 to 2003-04)*

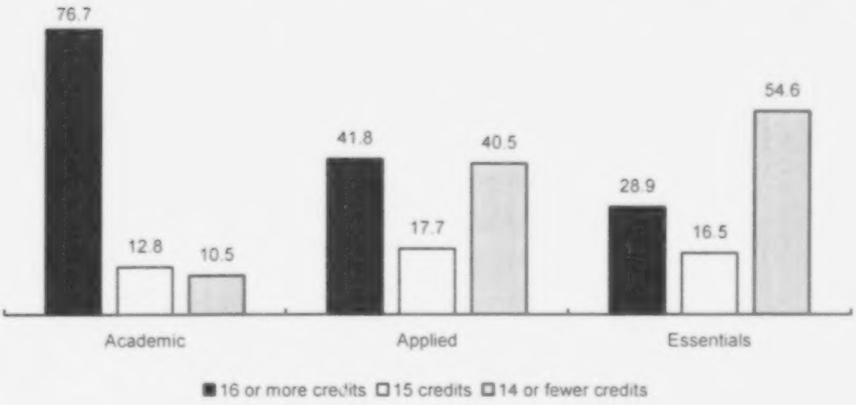


* This analysis is based on data from Information Management Group, Ontario Ministry of Education.

The improvement in Grade 10 credit accumulation over four years was slightly less than that observed for the Grade 9 cohorts. It can be seen in Figure 2.2 that the proportion of students who completed at least 16 credits successfully in the fourth cohort through Grade 10 (63.6% in 2003-04) had increased by 3.8 percent since the first new cohort who began Grade 9 in 1999-2000. The proportions of students who gained only 14 or fewer credits by the end of Grade 10 from the first to the fourth cohort decreased from 24.5 percent to 21.7 percent. These figures are not quite as encouraging as the increasing success rate of Grade 9 students over the five-year period and can be explained, in part, by changes in the proportion of students taking Academic courses.

Figure 2.3 is designed to illustrate the sharp differences in credit accumulation when students are classified by the type of courses they took. The figure presents two years of credit accumulation for the fourth cohort in the Reorganized Program with students classified by type of core courses taken.

Figure 2.3: Credit Accumulation by Type of Core Courses Taken* (% Grade 10 Students; 2003-04)



* For the first two sets of core courses, all three were taken as Academic or Applied (English or French in French schools, Mathematics and Science); for the last set, at least one of the three core courses was taken as Essentials.

Percentages of students in Academic, Applied and Essentials do not add up to 100 because some students' timetables did not fit these categories.

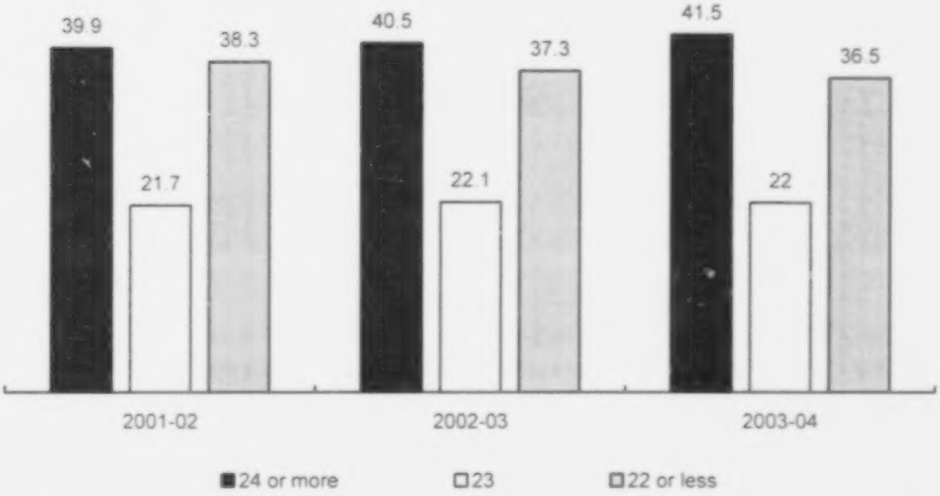
This analysis is based on data from Information Management Group, Ontario Ministry of Education.

In 2003-04, over three-quarters of the Grade 10 students whose core courses were Academic (English or French in French schools, Mathematics and Science) obtained at least 16 credits after two years of secondary school in 2003-04; however, only 41.8 percent of the students whose core courses were Applied and 28.9 percent of those whose core courses were Essentials courses had done so. The proportions of students in each of the three groups who had achieved 14 or fewer credits were markedly different (10.5% - the group enrolled in the three Academic courses; 40.5% - in the three Applied courses; and 54.6% - in Essentials). The large gap in credit accumulation by the end of Grade 10 between those taking Applied and those taking Academic courses is further exacerbated by higher failure rates in Grades 11 and 12 Workplace and College courses compared to University courses (see, for example, Tables 2.9 and 2.10 p.42).

c. Three Years of Grade 11 Students in the Reorganized Program

Figure 2.4 presents three years of credit accumulation information for the first three cohorts in the Reorganized Program.

Figure 2.4: Credit Accumulation - Grade 11 (3 Cohorts; 2001-02 to 2003-04)*



* This analysis is based on data from Information Management Group, Ontario Ministry of Education.

There has been a slight increase in the proportion of students obtaining 24 credits or more over the three years, and a correspondingly slight decline in the proportion obtaining 22 or fewer credits. These data indicate that there will not be a substantial increase in four-year graduation rates for the third cohort in the Reorganized Program in comparison with the first cohort.

d. Two Years of Grade 12 Students in the Reorganized Program – Four-Year Graduation Rates

The data file used for determining Grade 12 students' credit accumulation is incomplete in that it does not include accurate information on the proportion of students who left school in the third or fourth year; consequently, graduation information from the Ministry's biographical file was used for this analysis. Table 2.2 presents the four-year graduation rates for the first two cohorts of students.

Table 2.2: Four-Year Graduation Rates*
(% 1st & 2nd Cohort Students)

Cohort	% Students Graduating in 4 Years
1st Cohort (2002-03)	57.2
2nd Cohort (2003-04)	59.4

* This analysis is based on data from Information Management Group, Ontario Ministry of Education.

There is a small increase in the four-year graduation rate for the second cohort in comparison to the first. The increase in graduation rates expected for the third, fourth and fifth cohorts will still place Ontario well behind the graduation rates of British Columbia, New Brunswick and Nova Scotia.

e. Fifth Year Graduation Rates

Some first cohort students who returned for a fifth year in 2003-04 had already graduated, but approximately two-thirds of them had not (see section C6 on 5th Year students – p.50). About one-third of the original Grade 9 enrolment returned for a fifth year. The graduation rate after five years for the first cohort in the Reorganized Program (including four-year graduates) was approximately 70 percent. This figure is well below the five-year graduation rate for the last cohort of the previous program (approximately 78%).

2. Course Enrolments: Effects on Credit Accumulation

It is important to note the effect that course enrolment patterns have on credit accumulation. For example, if proportionate enrolments in Applied and Essentials courses increased resulting in a corresponding decline in Academic course enrolments, and failure rates by course type remained relatively constant, more students would be adversely affected by the higher failure rates in Applied and Essentials courses, and fewer credits would be obtained. Even if failure rates declined overall, there could be a counterbalancing effect of greater proportions of students in those higher-failure-rate courses.

In this section, we present the course enrolments in English, Mathematics and Science for the five cohorts in the Reorganized Program of Grade 9 since 1999, the four cohorts of Grade 10 since 2000, the three cohorts of Grade 11 since 2001 and the two cohorts of Grade 12 since 2002.

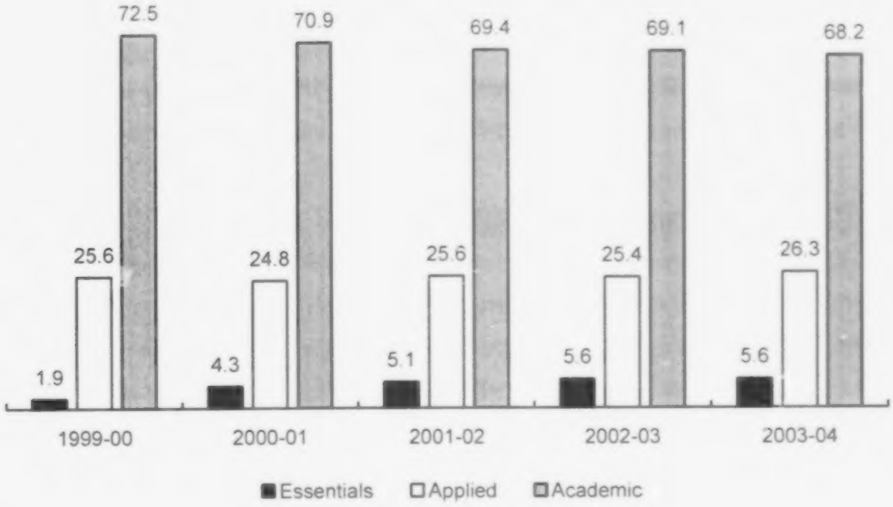
Changes over time in the proportions of students enrolled in the core course types and the impact on credit accumulation is considered in this section.

a. English Enrolments – Grades 9 and 10

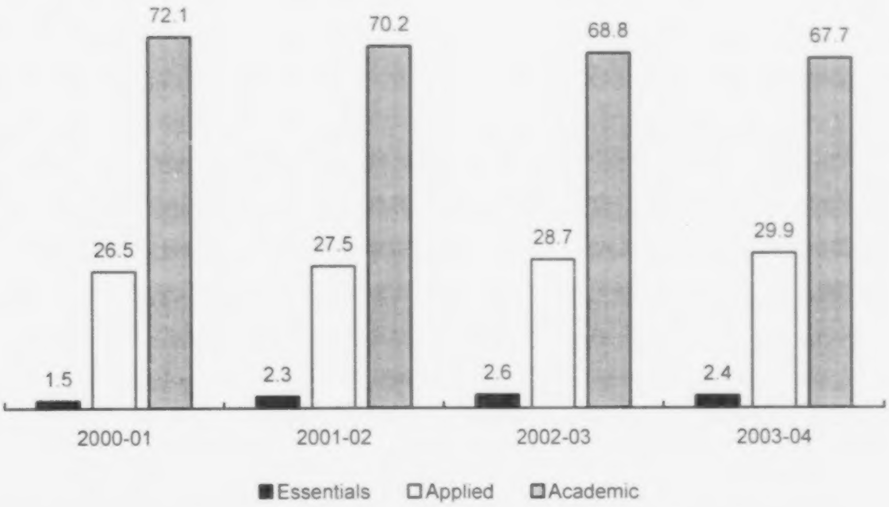
We noted in the Phase I report that the proportions of students taking Academic and Applied courses in Grades 9 and 10 were very similar to those who had taken Advanced and General courses in the past. In Phase I, enrolments in Essentials courses were much lower than in OS:IS Basic-level courses. In order to see whether the proportions in the first cohort have changed, Figure 2.5 presents enrolments in Grades 9 and 10 for all cohorts in the Reorganized Program to date by type of English course.

Figure 2.5: Grades 9 & 10 English Courses Enrolments (% Students)*

Grade 9



Grade 10



*Percentages are based on 126,641 students enrolled in Grade 10 English in 2000-01, on 130,409 in 2001-02, on 142,495 in 2002-03, and on 134,589 in 2003-04.

These analyses are based on data from Information Management Group, Ontario Ministry of Education.

Figure 2.5 indicates that there has been a slight reduction in the proportion of students taking Grade 9 and 10 Academic English over time – over 4 percent since the first cohort began Grade 9 (in 1999-00) and Grade 10 (in 2000-01). There has been little change in the proportions of students taking Grade 9 Applied English (ENG1P), but an increase in those taking Applied English in Grade 10 (ENG2P). This pattern should change with the assignment in compulsory credit value to Grade 10 LDCC English (ENG2L); i.e., fewer students will be enrolled in Applied English, and an increasing proportion in Grade 10 LDCC English. There was little growth in Grade 10 Essentials English prior to 2004-05 because the course did not meet the compulsory credit requirement until 2004-05. The numbers in the course will increase with implementation of the policy change.

Contrary to the pattern in Grade 9, the drop in Grade 10 Academic English enrolments parallels the increase in Applied English enrolments. As explained previously (p.19), the increase in the proportion of students successfully completing Applied courses is counterbalanced somewhat by the increased enrolment in Applied courses where failure rates are higher than in Academic courses.

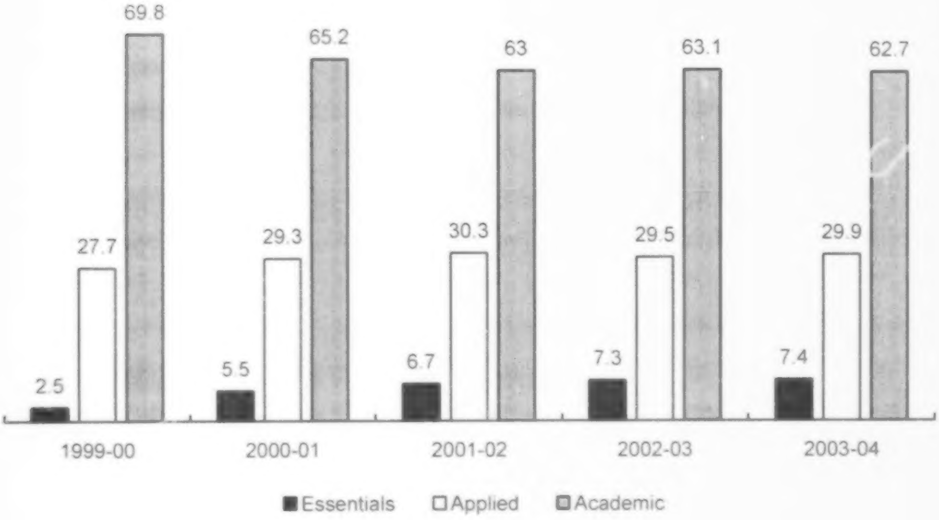
To summarize, the steady decline in the proportion of students taking Grade 9 Academic English is paralleled by the increase in students taking Essentials English. However, the decline in the proportion of students taking Grade 10 Academic English is reflected in the increase in Grade 10 Applied English enrolments.

b. Mathematics Enrolments – Grades 9 and 10

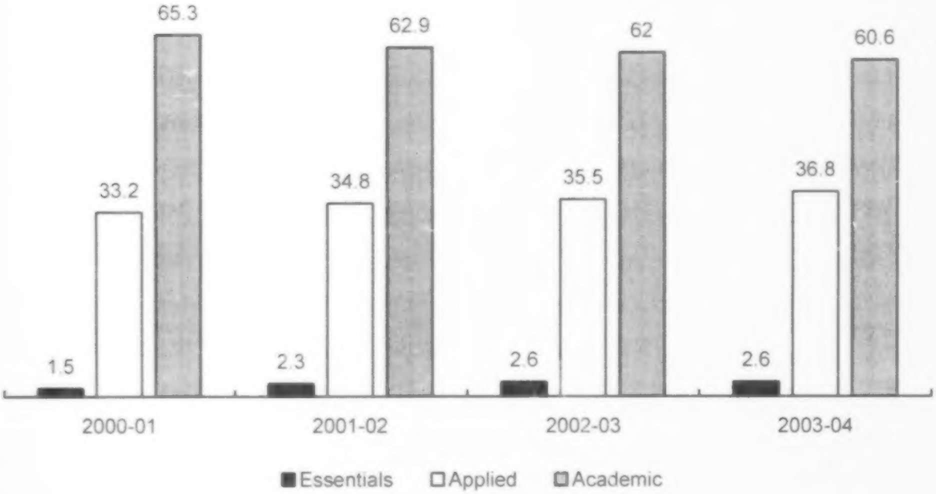
Figure 2.6 presents student enrolments in Mathematics courses by course type for the Reorganized Program's first, second, third, fourth and fifth cohorts in Grades 9 and the first, second, third and fourth cohorts in Grade 10.

Figure 2.6: Grades 9 & 10 Mathematics Courses Enrolments (% Students)*

Grade 9



Grade 10



* Percentages are based on 130,440 students enrolled in Grade 10 English in 2000-01, on 134,321 in 2001-02, on 146,770 in 2002-03, and 138,627 on in 2003-04.

These analyses are based on data from Information Management Group, Ontario Ministry of Education.

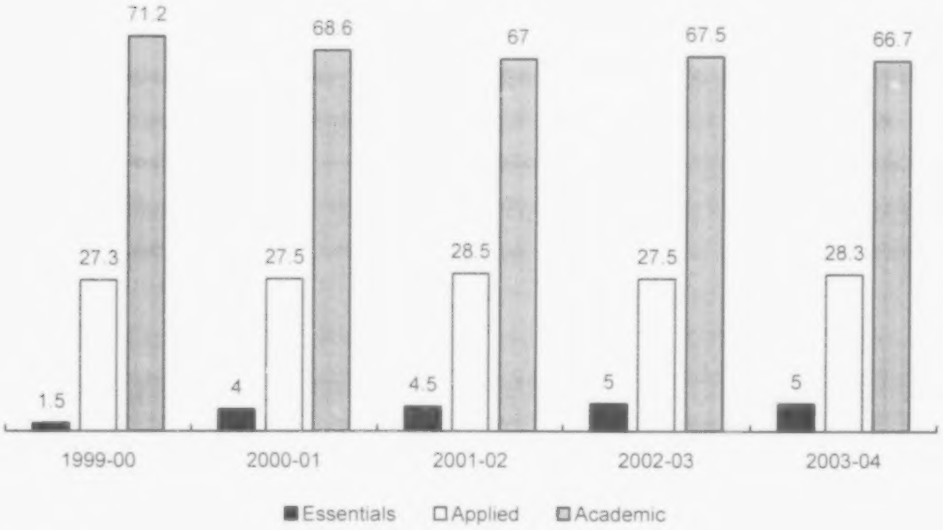
Figure 2.6 shows a similar pattern for Grades 9 and 10 Mathematics as English with a few fundamental differences: (1) the decline in the proportion of students taking Academic Mathematics over time is more pronounced, especially in Grade 9; (2) the increase in students taking Grade 9 Essentials Mathematics is greater than in English; this increase corresponds to the decline in Academic Mathematics enrolments. As in English, the decline of proportions of students taking Grade 10 Academic Mathematics corresponds with an increase in Applied Mathematics enrolment. Again, the low proportions taking Grade 10 Essentials Mathematics reflected the absence of compulsory credit value assigned to the course. This will change in 2004-05. Clearly Mathematics is viewed as more difficult than English and, consequently, fewer students take the Academic course.

c. Science Enrolments – Grades 9 and 10

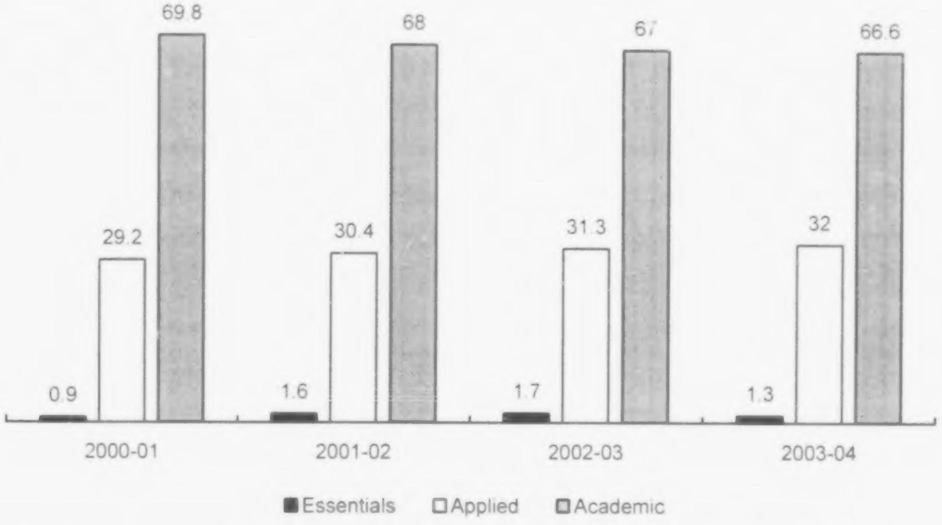
Enrolments in Grades 9 and 10 Academic Science have also declined over time (see Figure 2.7). In Grade 9, the difference was made up mainly by increasing enrolments in the Essentials course, but in Grade 10 the difference was made up by students taking the Applied course who would have taken the Academic course in the past.

Figure 2.7: Grades 9 & 10 Science Courses Enrolments (% Students)*

Grade 9



Grade 10



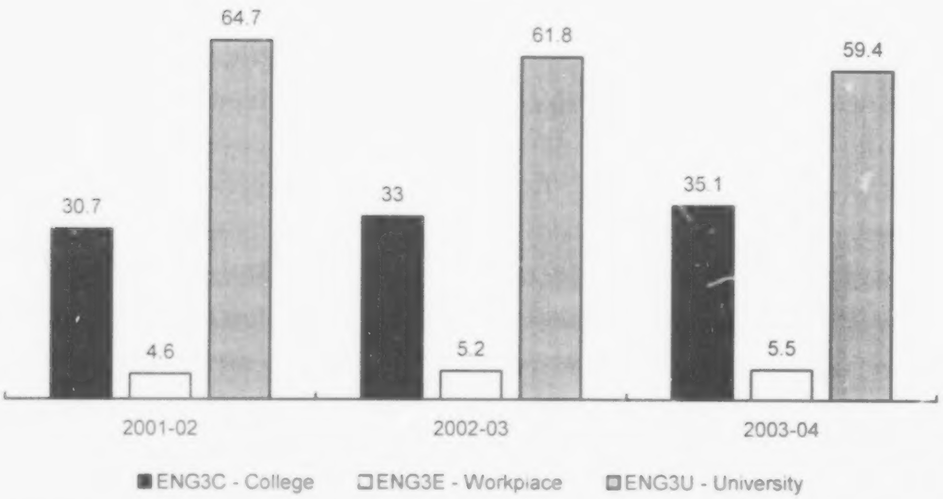
* Percentages are based on 130,440 students enrolled in Grade 10 English in 2000-01, on 134,321 in 2001-02, on 146,770 in 2002-03, and on 138,627 in 2003-04.

These analyses are based on data from Information Management Group, Ontario Ministry of Education.

d. English Enrolments – Grades 11 and 12

Figure 2.8 presents the proportion of students in the first three cohorts of the Reorganized Program enrolled in the three types of Grade 11 English courses.

Figure 2.8: Grade 11 English Courses Enrolments (% Students)*



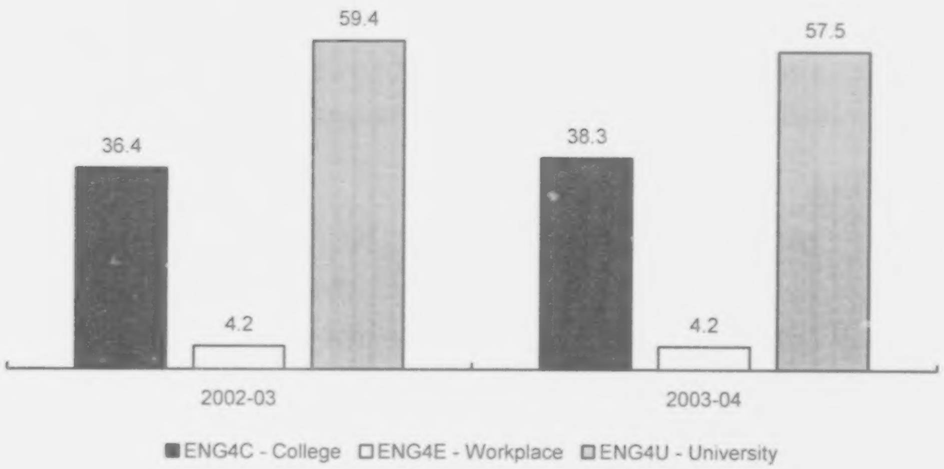
* Percentages are based on 125,839 students enrolled in Grade 11 English in 2001-02, on 146,726 in 2002-03, and on 139,902 in 2003-04.

This analysis is based on data from Information Management Group, Ontario Ministry of Education.

There was a decline in the proportion of students enrolled in Grade 11 University English (ENG3U) over the first three years of the Reorganized Program – consistent with the Grades 9 and 10 Academic English pattern. There was a slight increase in the proportion of students taking Workplace English (ENG3E), but a notable increase in College English (ENG3C).

Figure 2.9 presents the proportion of Grade 12 students in the first two cohorts of the Reorganized Program taking English courses.

Figure 2.9: Grade 12 English Courses Enrolments*
(% Students)



* Percentages are based on 132,029 enrolled in Grade 12 English in 2002-03, and on 134,539 in 2003-04.

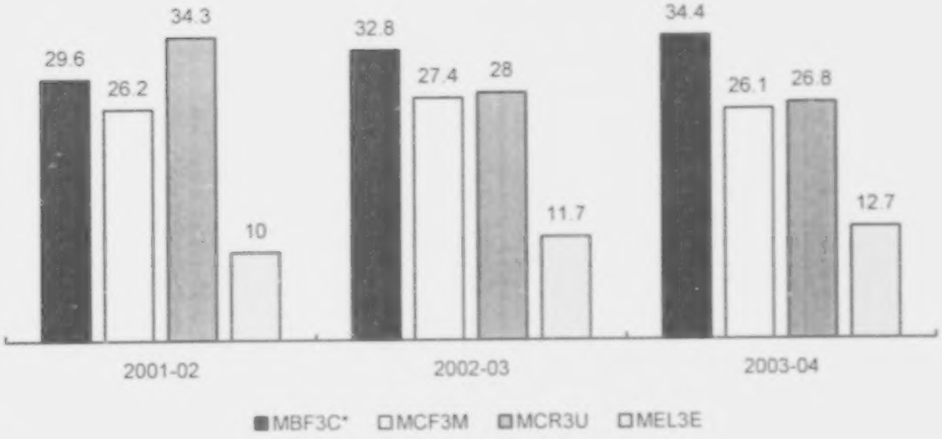
This analysis is based on data from Information Management Group, Ontario Ministry of Education.

Figure 2.9 reinforces the pattern of declining proportions of students in University courses (ENG4U). The proportion of students taken College English (ENG4C) increased over the first cohort and Workplace (ENG4E) numbers remained small (4.2%).

e. Mathematics Enrolments – Grades 11 and 12

Figure 2.10, presents the Grade 11 Mathematics enrolments in the four types of courses for the first three cohorts in the Reorganized Program in 2001-02, 2002-03 and 2003-04.

Figure 2.10: Grade 11 Mathematics Courses Enrolments
(% Students)



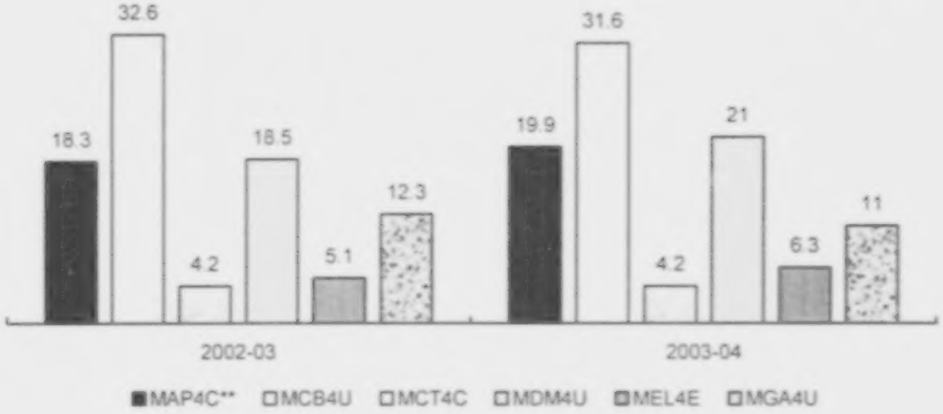
* See text for course titles.

This analysis is based on data from Information Management Group, Ontario Ministry of Education.

Figure 2.10 indicates that the proportion of students who took College Mathematics (Mathematics of Personal Finance – MBF3C) has increased. University Mathematics (Functions and Relations – MCR3U) proportions have declined and proportions who took the University/College course (Functions – MCF3M) have remained about the same. Workplace Mathematics (Mathematics for Everyday Life – MEL3E) proportions increased as more students used this course to complete their three years of required Mathematics courses.

Figure 2.11 presents the proportion of first and second cohort students who took the six Grade 12 Mathematics courses in 2002-03 and 2003-04. It must be noted that not all students took Mathematics in Grade 12. (Only three years of Mathematics are required.)

Figure 2.11: Grade 12 Mathematics Courses Enrolments*
(% Students)



* Percentages are based on 135,990 estimated students enrolled in Grade 12 in 2002-03, and on 138,575 in 2003-04.

**See text for course titles.

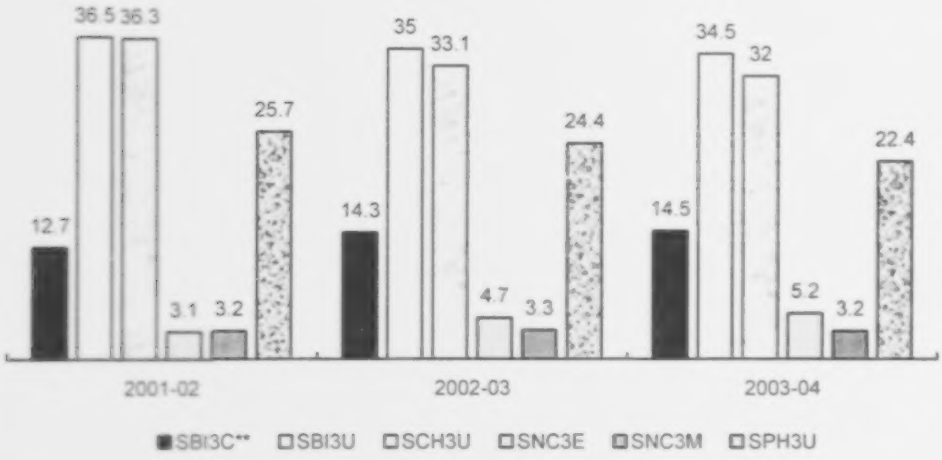
This analysis is based on data from Information Management Group, Ontario Ministry of Education.

Figure 2.11 shows little change over the two cohorts in the proportion of students taking the six Grade 12 Mathematics courses, except for slightly decreased enrolments in Advanced Functions and Introductory Calculus (MCB4U) and Geometry and Discrete Mathematics (MGA4U), and a slight increase in Mathematics for Data Management (MDM4U), College and Apprenticeship Mathematics (MAP4C) and Mathematics for Everyday Life (MEL4E). There was no change in enrolments for Mathematics for College Technology (MCT4C).

f. Science Enrolments – Grades 11 and 12

Figure 2.12 presents Grade 11 Science enrolments in five courses for the three cohorts from 2001-02 to 2003-04.

Figure 2.12: Grade 11 Science Courses Enrolments*
(% Students)



* Percentages are based on 129,614 estimated students enrolled in Grade 11 in 2001-02, on 151,128 in 2002-03, and on 144,099 in 2003-04.

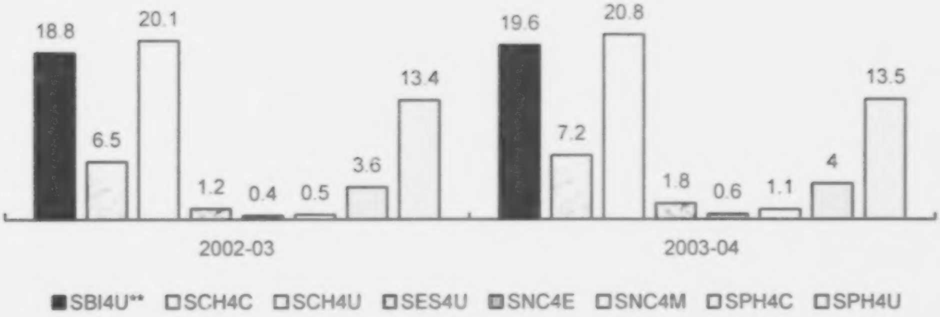
**See text for course titles.

This analysis is based on data from Information Management Group, Ontario Ministry of Education.

It must be noted that some students were enrolled in more than one Science course, and some students met the Science/Technology requirement by taking a Technology course. Figure 2.12 indicates that there was a slight decline in University Biology (SBI3U), Chemistry (SCH3U) and Physics (SPH3U) enrolments accompanied by a slight increase in College Biology (SBI3C). Workplace Science (SNC3E) enrolments although small, increased slightly over the three years. University/College Science (SNC3M) enrolments remained low but stable.

Figure 2.13 indicates little change in the enrolments of the two cohorts of students taking Science courses in Grade 12.

Figure 2.13: Grade 12 Science Courses Enrolments*
(% Students)



* Percentages are based on 135,990 estimated students enrolled in Grade 12 in 2002-03, and on 138,575 in 2003-04.

**See text for course titles.

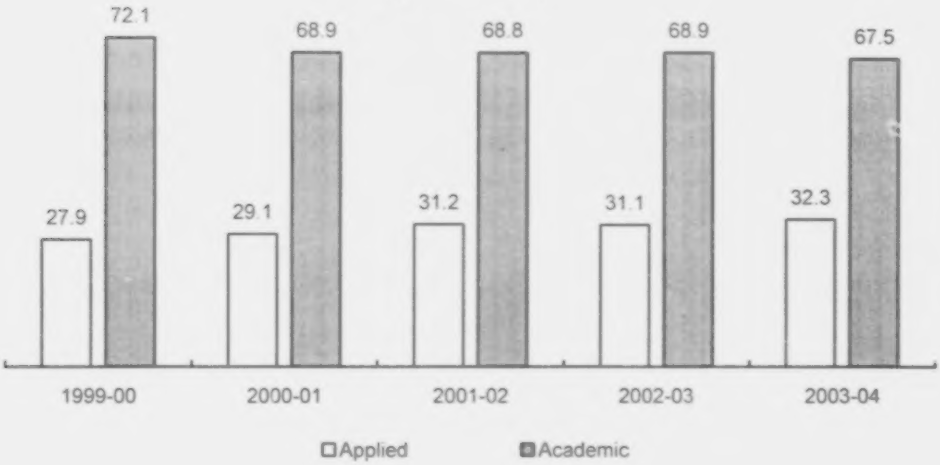
This analysis is based on data from Information Management Group, Ontario Ministry of Education.

There were slight increases in each of the courses indicating a slightly greater proportion of second cohort students taking Science (SBI4U – University Biology, SCH4C – College Chemistry, SCH4U – University Chemistry, SES4U – Earth and Space Science, SNC4E – Workplace Science, SNC4M – University/College Science, SPH4C – College Physics, SPH4U – University Physics).

g. Other Courses

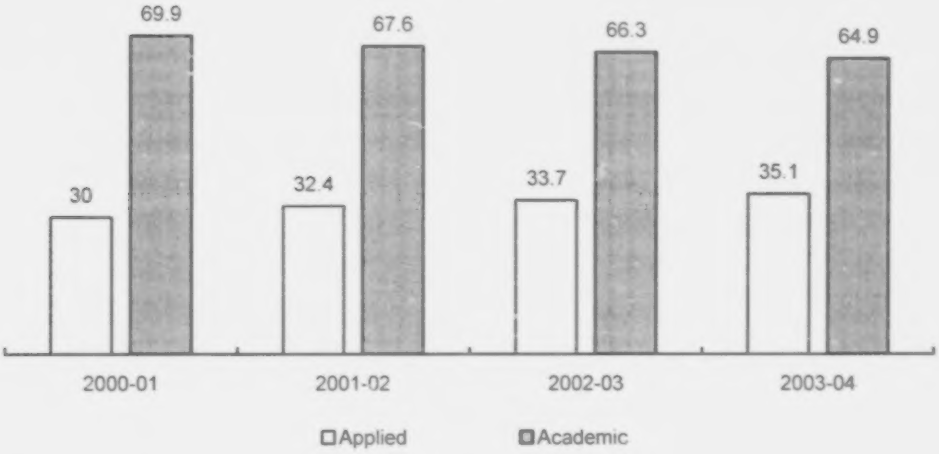
The impact of changes in enrolments by course type on credit accumulation can also be seen in other courses such as History and Geography. Figure 2.14 shows a decline in the proportion of students taking Academic Grade 9 Geography for the second cohort followed by a leveling off in succeeding years. The pattern in History more closely approximates that in the other subjects; that is, a steady decline in the proportion of students taking Academic Grade 10 History.

Figure 2.14: Grade 9 Geography Courses Enrolments
(% Students)



This analysis is based on data from Information Management Group, Ontario Ministry of Education.

Figure 2.15: Grade 10 History Courses Enrolments
(% Students)



This analysis is based on data from Information Management Group, Ontario Ministry of Education.

h. Impact of Changing Proportions of Students Taking Courses

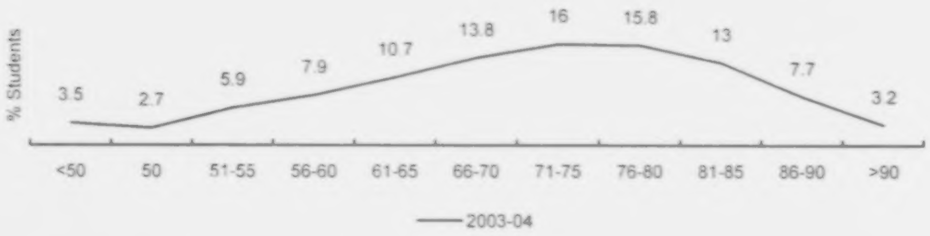
There has been a significant shift in the proportion of students taking particular course types in Grades 9 and 10, and to a lesser extent in Grades 11 and 12. More students are taking courses where the failure rates are relatively high (Applied and Essentials), and fewer taking courses where failure rates are relatively low (Academic). This shift in course selection influences overall student credit accumulation.

3. Student Achievement by Course

In this section, we examine marks distributions in particular courses with a focus on successful course completion because, of course, course success relates directly to credit accumulation. However, we can also learn about the quality and extent of learning in a course by considering student marks. If there are substantial numbers of students in the middle or high range of achievement, usually this means that they showed evidence of learning. On the other hand, if high failure rates in a course are accompanied by a substantial number of raised-to-50 marks (a mark of 50% usually represents a marginally failing grade that has been raised to a passing grade), then the quality of learning in those classrooms must inevitably have been adversely affected. Low morale and a lack of effort by failing or near-failing students can influence the quality of learning for other students. Courses that present such a distribution of marks may require revision to be more consistent with students' abilities.

The following figures, Figures 2.16 and 2.17, demonstrate examples of marks distributions that reveal information about the student learning that has taken place in two courses – Grade 9 Academic English for 2003-04 and Applied Mathematics for 2000-01.

Figure 2.16: English Marks Distributions – ENG1D (Grade 9 Academic; 2003-04)*



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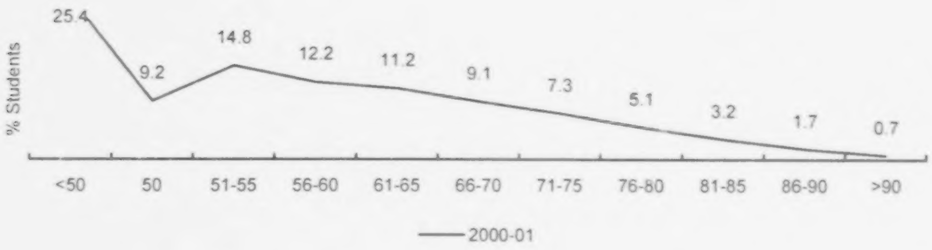
* This analysis is based on data from Information Management Group, Ontario Ministry of Education.

Figure 2.17: Mathematics Marks Distributions – MFM1P (Grade 9 Applied; 2000-01)



* This analysis is based on data from Information Management Group, Ontario Ministry of Education.

In the Academic English course (ENG1D), very few students failed and few students received marks raised to 50 percent. The majority of students' marks fall between 66 and 85 percent. This marks distribution suggests a positive learning environment in this course.

In the Applied Mathematics course (Foundations of Mathematics – MFM1P), one-quarter of the students received failing marks and over 9 percent of the students received a raised mark to 50 percent; that is, over one-third of the students had in fact failed the course. Overall, 61.6 percent of the students obtained marks of 60 or below. Very few students obtained high marks. This suggests a low-quality learning environment where teachers can be stressed and have difficulty effectively covering the course and evaluating students. This Grade 9 Applied Mathematics course would appear to be a course requiring extensive revisions to be more responsive to students' abilities.

a. English Marks Distributions – Grades 9, 10, 11 and 12

Figures 2.18 and 2.19 present the marks distributions for the core English courses in Grades 9, 10, 11 and 12 for 2003-04.

Figure 2.18: English Marks Distributions (Grades 9 & 10; 2003-04)*

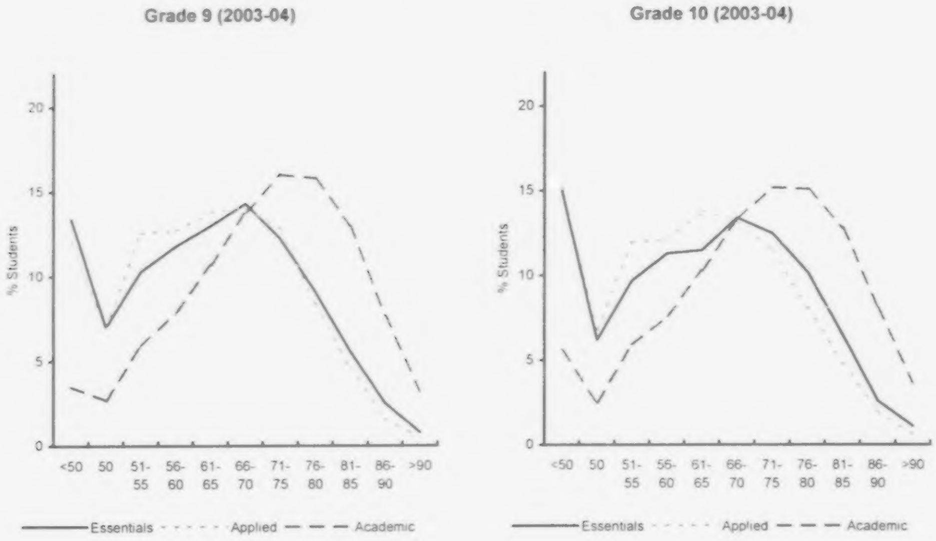
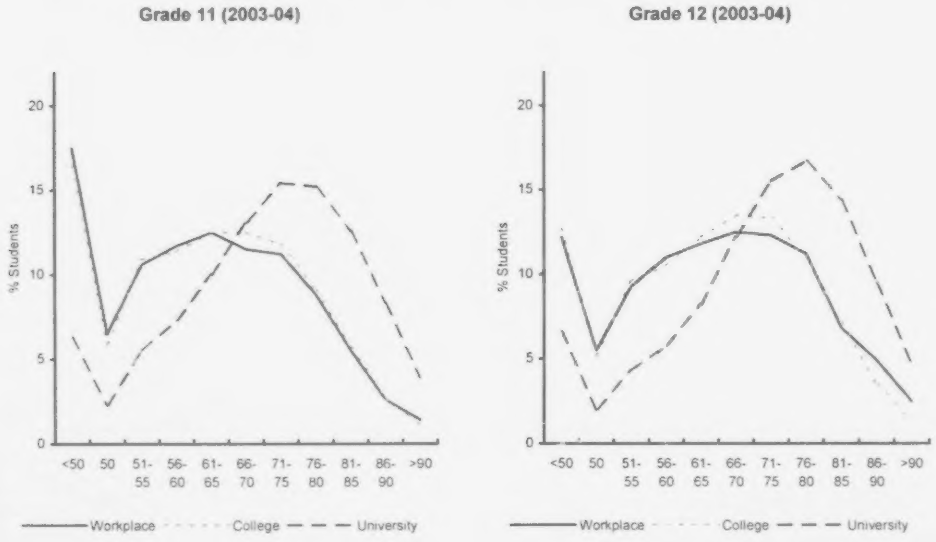


Figure 2.19: English Marks Distributions (Grades 11 & 12; 2003-04)*



* These analyses are based on data from Information Management Group, Ontario Ministry of Education.

Academic and University English courses have similar marks distributions; that is, the distributions are normal, with many students in the middle range and relatively few students at either end. This has traditionally been the pattern in English marks distributions in the former system, as well. On the other hand, failure rates are quite common in the Essentials, Applied and College courses. Marks distributions in those courses are remarkably similar, and the distributions are skewed. Failure rates in Workplace English are higher than they were in Basic level English courses in the past.

Table 2.3 presents marks distributions in Grade 9 core English courses over the past five years – that is, for the first five cohorts in the Reorganized Program.

Table 2.3: English Marks Distributions (% Grade 9 Students: 1999-00 to 2003-04)*

Course	Year	<50	50	51-55	56-60	61-65	66-70	71-75	76-80	81-85	86-90	>90
ENG14	1999-00	14.1	6.7	9.7	11.2	12.3	13.9	13.5	9.9	5.6	2.7	0.5
(Essentials)	2000-01	18.0	6.6	10.6	11.3	12.4	13.4	12.7	8.1	4.3	2.1	0.6
	2001-02	17.5	6.7	10.9	11.4	12.9	13.0	11.1	8.5	5.3	2.0	0.6
	2002-03	15.2	6.8	10.4	12.3	12.7	14.0	12.4	8.8	4.7	2.2	0.6
	2003-04	13.4	7.0	10.3	11.8	13.0	14.3	12.2	9.1	5.6	2.5	0.8
ENG1P	1999-00	14.5	6.6	12.1	13.1	13.4	13.4	11.7	8.4	4.5	1.9	0.5
(Applied)	2000-01	16.8	7.1	12.6	12.4	13.4	13.0	11.0	7.6	4.1	1.6	0.4
	2001-02	18.6	6.8	12.1	12.4	13.9	12.6	10.6	7.3	3.9	1.4	0.4
	2002-03	14.6	6.8	12.5	12.7	13.5	13.5	11.7	8.1	4.5	1.6	0.4
	2003-04	12.0	7.0	12.6	12.7	13.8	14.1	12.8	8.4	4.6	1.6	0.5
ENG1D	1999-00	4.4	2.8	6.2	8.0	10.6	13.6	15.5	15.2	12.8	7.8	3.3
(Academic)	2000-01	5.3	2.9	6.4	8.2	11.0	13.6	15.2	14.7	12.0	7.4	3.1
	2001-02	5.6	2.9	6.1	7.9	10.6	13.5	15.5	15.0	12.4	7.4	3.2
	2002-03	4.0	2.7	6.0	7.8	10.4	13.4	15.7	15.5	13.1	7.9	3.5
	2003-04	3.5	2.7	5.9	7.9	10.7	13.8	16.0	15.8	13.0	7.7	3.2

* This analysis is based on data from Information Management Group, Ontario Ministry of Education.

In general, for each course the shapes of the distributions over the five years are very similar. Failure rates increased in the middle years, but in all three courses had declined by the fifth year (2003-04). Failure rates were relatively high in the Applied and Essentials courses, and notably low in the Academic course.

Marks distribution information is summarized in a similar way in Table 2.4 for the first four cohorts of Grade 10 English. Again, failure rates increased in the second year and then slowly declined. Failure rates and 'raises to 50%' are quite high in the Applied and Essentials courses. The marks distribution for Grade 10 Academic English display the typical 'normal' distribution shape.

Table 2.4: English Marks Distributions (% Grade 10 Students: 2000-01 to 2003-04)*

Course	Year	<50	50	51-55	56-60	61-65	66-70	71-75	76-80	81-85	86-90	>90
ENG23/ ENG24 (Essentials)	2000-01	14.7	5.2	9.8	11.1	14.3	14.1	12.4	10.2	5.2	2.2	0.8
	2001-02	20.3	6.5	11.0	10.7	11.8	11.7	11.9	8.3	4.7	2.5	0.7
	2002-03	18.1	5.7	11.8	10.8	11.8	12.9	12.1	8.6	5.0	2.5	0.7
	2003-04	15.0	6.2	9.7	11.3	11.5	13.4	12.5	10.2	6.5	2.6	1.1
ENG2P (Applied)	2000-01	16.9	6.8	12.6	13.0	13.5	12.8	10.9	7.4	4.1	1.6	0.4
	2001-02	19.7	6.8	12.3	12.4	13.2	12.3	10.5	6.9	4.1	1.4	0.4
	2002-03	17.5	6.6	12.4	12.5	13.1	12.6	11.0	7.5	4.3	1.9	0.6
	2003-04	15.2	6.8	12.0	12.1	13.8	13.2	11.5	8.1	4.8	2.0	0.6
ENG2D (Academic)	2000-01	6.2	2.8	6.5	8.2	10.7	13.2	14.8	14.4	12.2	7.5	3.6
	2001-02	7.0	2.8	6.3	8.1	10.5	12.9	14.9	14.4	12.1	7.5	3.4
	2002-03	6.2	2.7	6.0	7.7	10.5	12.8	15.0	14.8	12.7	7.9	3.6
	2003-04	5.6	2.5	5.9	7.6	10.3	13.3	15.2	15.1	12.8	8.1	3.6

* This analysis is based on data from Information Management Group, Ontario Ministry of Education.

Table 2.5 presents Grade 11 core English marks distributions for the first three cohorts in the Reorganized Program.

Table 2.5: English Marks Distributions (% Grade 11 Students: 2001-02 to 2003-04)*

Course	Year	<50	50	51-55	56-60	61-65	66-70	71-75	76-80	81-85	86-90	>90
ENG3C (College)	2001-02	17.0	6.3	11.5	12.4	12.8	13.1	11.3	8.0	4.7	2.2	0.7
	2002-03	17.3	6.1	11.3	11.7	12.6	12.6	11.3	8.5	5.2	2.5	1.1
	2003-04	16.5	5.9	10.9	11.4	12.5	12.5	11.8	9.1	5.7	2.7	1.1
ENG3E (Workplace)	2001-02	16.8	6.1	11.7	12.0	12.6	12.3	11.5	8.6	4.6	2.9	0.9
	2002-03	17.6	6.9	11.6	11.1	12.1	12.5	11.4	8.4	4.9	2.4	1.0
	2003-04	17.5	6.5	10.6	11.7	12.5	11.5	11.2	8.8	5.5	2.6	1.4
ENG3U (University)	2001-02	7.1	2.5	6.0	7.6	9.8	13.1	14.8	14.9	12.7	7.8	3.7
	2002-03	7.3	2.5	5.9	7.4	9.8	12.8	14.8	14.8	12.4	8.2	4.0
	2003-04	6.3	2.3	5.5	7.3	10.0	13.1	15.4	15.2	12.6	8.3	3.9

* This analysis is based on data from Information Management Group, Ontario Ministry of Education.

Failure rates and 'raises to 50%' are high for the College and Workplace English courses. The increasing gap in credit accumulation for university-bound compared to other students can be readily explained from the marks patterns in these tables. There was little evidence of changes in student achievement over the three cohorts.

Table 2.6 illustrates a similar pattern to the one in Grade 11 core English courses for the two cohorts' Grade 12 courses.

Table 2.6: English Marks Distributions (% Grade 12 Students: 2002-03 to 2003-04)*

Course	Year	<50	50	51-55	56-60	61-65	66-70	71-75	76-80	81-85	86-90	>90
ENG4C (College)	2002-03	14.1	5.3	9.9	10.8	12.3	13.6	12.7	10.3	6.6	3.2	1.2
	2003-04	12.7	5.2	9.6	10.5	12.2	13.5	13.3	11.0	7.1	3.5	1.4
ENG4E (Workplace)	2002-03	12.6	6.8	12.5	11.2	13.2	13.1	12.0	8.3	5.9	2.7	1.7
	2003-04	12.2	5.5	9.3	11.0	11.8	12.5	12.3	11.2	6.8	4.9	2.5
ENG4U (University)	2002-03	6.5	2.0	4.5	6.2	8.5	12.0	14.8	16.4	14.5	9.7	4.9
	2003-04	6.6	2.0	4.3	5.8	8.2	12.2	15.5	16.7	14.4	9.5	4.7

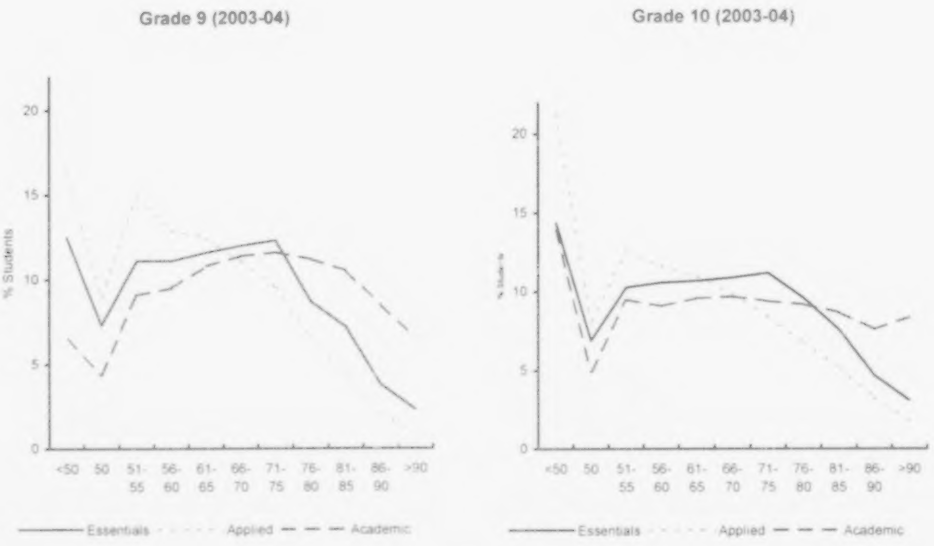
* This analysis is based on data from Information Management Group, Ontario Ministry of Education.

Failure rates and 'raises to 50%' were relatively high in Grade 12 Workplace and College English courses and relatively low in the University course. There were more students receiving marks in the above 75 percent category in the College and Workplace courses the second time around.

b. Mathematics Marks Distributions – Grades 9, 10, 11 and 12

As explained earlier, to obtain a picture of the quality of learning in a course, it is helpful to examine not only the range of marks assigned to students but also the number of students whose failing marks were raised to 50 percent. Figures 2.20 presents the Grades 9 and 10 marks distributions for Mathematics in 2003-04.

Figure 2.20: Mathematics Marks Distributions (Grades 9 & 10, 2003-04)*



* This analysis is based on data from Information Management Group, Ontario Ministry of Education.

Unlike English, the distributions in Grade 9 and 10 Academic Mathematics are flatter and skewed. Marks are more similar across courses than was the case in English, even though students who took the Academic course tended to obtain higher marks. Failure rates are notably high in the Grade 9 Applied courses and even higher in Grade 10 Applied. Failure rates were higher for all three course types in Grade 10.

Table 2.7 presents Grade 9 Mathematics marks distributions for the first five cohorts of students in the Reorganized Program.

Table 2.7: Mathematics Marks Distributions (% Grade 9 Students: 1999-00 to 2003-04)*

Course	Year	<50	50	51-55	56-60	61-65	66-70	71-75	76-80	81-85	86-90	>90
MAT14	1999-00	17.1	8.7	11.9	11.9	11.1	11.2	8.9	8.2	5.2	4.1	1.6
(Essentials)	2000-01	18.7	8.0	11.7	10.1	10.9	11.4	10.5	8.3	5.3	3.3	1.9
	2001-02	20.7	8.2	11.3	10.9	10.9	10.4	9.8	7.5	5.6	3.2	1.6
	2002-03	15.8	7.9	12.0	10.9	11.9	11.4	10.6	8.0	6.3	3.4	1.7
	2003-04	12.5	7.3	11.1	11.1	11.6	12.0	12.3	8.7	7.2	3.8	2.3
MFM1P	1999-00	21.6	9.2	13.6	12.5	11.7	10.1	8.0	6.2	4.0	2.3	0.8
(Applied)	2000-01	25.4	9.2	14.8	12.2	11.2	9.1	7.3	5.1	3.2	1.7	0.7
	2001-02	26.1	8.6	14.1	12.3	11.1	9.3	7.4	5.4	3.5	1.7	0.7
	2002-03	19.3	9.2	14.7	12.8	12.0	10.4	8.6	6.2	3.9	2.0	0.9
	2003-04	16.2	9.0	14.9	12.9	12.5	11.1	9.5	6.6	4.3	2.1	0.9
MPM1D	1999-00	8.7	4.6	8.7	9.6	10.6	11.4	11.5	11.0	9.9	7.9	6.1
(Academic)	2000-01	9.7	4.7	9.4	9.8	11.2	11.4	11.3	10.4	9.3	7.2	5.6
	2001-02	9.8	4.3	8.9	9.3	10.7	11.1	11.5	10.8	10.0	7.7	6.0
	2002-03	7.3	4.3	8.9	9.3	10.5	11.4	11.7	11.2	10.5	8.3	6.8
	2003-04	6.5	4.4	9.1	9.5	10.8	11.4	11.6	11.2	10.5	8.5	6.5

* This analysis is based on data from Information Management Group, Ontario Ministry of Education.

The proportion of students enrolled in Applied Mathematics courses who are 'at risk' of failure is quite substantial. For example, for Grade 9 Applied Mathematics in 1999-2000, the failure rate was 21.6 percent and the 'raise to a 50%' was 9.2 percent for a realistic failure rate of 30.8 percent. Altogether, 56.9 percent of the Grade 9 Applied Mathematics students across the province that year obtained 60 percent or less. Only 7.1 percent of students obtained marks over 80 percent. Grade 9 Applied Mathematics failure rates increased over the first three cohorts, but declined sharply in the fourth and fifth years of the new program. By 2003-04, failure rates had improved, but remained a concern.

A large proportion of students taking Grade 9 Essentials Mathematics were also failing or near failing. However, the failure rate of the course declined in Years 4 and 5 of the new program.

The marks pattern for Grade 9 Academic students was typical of Mathematics courses (flat distribution – more high and low marks than English). As with the other Grade 9 Mathematics courses, failure rates had declined for the fifth cohort.

Grade 10 Applied Mathematics marks also show evidence of high failure rates (see Table 2.8) and notably high proportions of 'raises to 50%'.

Table 2.8: Mathematics Marks Distributions (% Grade 10 Students: 2000-01 to 2003-04)*

Course	Year	<50	50	51-55	56-60	61-65	66-70	71-75	76-80	81-85	86-90	>90
MAT23/ MAT24	2000-01	14.9	8.1	11.4	11.4	11.8	11.9	11.3	8.7	5.5	3.2	2.0
(Essentials)	2001-02	20.8	7.4	10.1	11.2	12.3	11.2	10.2	7.4	4.7	3.0	1.7
	2002-03	17.2	7.7	11.6	10.9	11.3	11.3	10.1	8.5	5.3	3.8	2.4
	2003-04	14.4	6.9	10.3	10.6	10.7	10.9	11.2	9.6	7.6	4.7	3.1
MFM2P	2000-01	23.1	8.3	13.7	11.9	11.2	9.8	8.2	6.2	4.1	2.4	1.2
(Applied)	2001-02	26.3	8.0	13.2	11.2	10.7	9.2	7.6	5.8	4.3	2.4	1.4
	2002-03	24.1	8.3	13.4	11.4	10.6	9.2	8.0	6.2	4.6	2.8	1.4
	2003-04	21.3	8.1	12.6	11.6	11.0	9.9	8.4	6.8	5.2	3.3	1.8
MPM2D	2000-01	14.2	4.8	9.5	9.4	9.8	9.7	9.7	9.2	8.6	7.3	7.8
(Academic)	2001-02	17.2	5.1	9.7	9.1	9.3	9.2	9.2	8.7	8.1	6.9	7.5
	2002-03	15.7	4.9	9.4	9.1	9.3	9.2	9.3	9.0	8.5	7.3	8.4
	2003-04	13.9	4.9	9.5	9.1	9.6	9.7	9.4	9.2	8.7	7.6	8.4

* This analysis is based on data from Information Management Group, Ontario Ministry of Education.

There was a slight decline in failure rates by the fourth cohort. Failure rates were also surprisingly high in Grade 10 Academic Mathematics. The composite failure rate patterns in the three course types not only have a negative effect on credit accumulation but also reinforce a negative perception of Mathematics as a viable area of interest. When nearly 40 percent of students taking Grade 10 Academic Mathematics obtain final marks of 60 percent or less, then it is necessary to review the appropriateness of the curriculum. Is it educationally sound to make a "required" subject such a high-risk experience for students?

Either one of four Grade 11 Mathematics courses can be taken to meet the third Mathematics course requirement (see Table 2.9 for the marks distributions for the three cohorts of students in the Reorganized Program).

Table 2.9: Mathematics Marks Distributions (% Grade 11 Students: 2001-02 to 2003-04)[a]

Course[b]	Year	<50	50	51-55	56-60	61-65	66-70	71-75	76-80	81-85	86-90	>90
MBF3C	2001-02	18.6	6.5	12.1	11.8	11.9	11.0	9.6	7.8	5.7	3.3	1.7
	2002-03	17.3	6.9	11.7	11.8	11.7	11.0	10.0	8.1	5.9	3.8	1.9
	2003-04	16.5	6.8	11.2	11.5	11.6	11.1	10.1	8.6	6.2	4.0	2.2
MCF3M	2001-02	20.9	7.5	13.2	12.6	11.4	10.2	8.7	6.4	4.6	2.8	1.5
	2002-03	19.7	6.8	13.3	12.3	11.5	10.4	8.8	7.2	5.1	3.1	1.7
	2003-04	18.2	6.9	13.0	12.3	12.0	10.9	9.3	7.2	5.2	3.2	1.8
MCR3U	2001-02	11.4	4.0	8.0	8.6	9.5	10.2	10.8	10.6	9.9	8.2	8.7
	2002-03	11.0	3.7	7.4	8.0	9.6	10.3	11.0	11.0	10.1	8.8	9.0
	2003-04	9.2	3.6	7.7	8.2	9.5	10.4	11.4	11.0	10.8	9.1	9.0
MEL3E	2001-02	17.0	7.1	11.2	10.9	11.0	11.6	10.6	8.1	6.5	3.9	2.1
	2002-03	15.8	6.8	11.0	10.8	10.8	11.7	10.7	8.8	6.4	4.2	3.1
	2003-04	15.3	6.4	10.6	9.9	10.9	11.2	11.4	9.7	6.9	4.8	2.9

[a] This analysis is based on data from Information Management Group, Ontario Ministry of Education.

[b] MBF3C – Mathematics of Personal Finance, MCF3M – Functions, MCR3U – Functions & Relations, MEL3E – Mathematics for Everyday Life.

The University/College course is made up of three of the four components in the University course and has proven to be quite difficult for students (over half of the students obtained marks of 60 or less). Failure rates for all three cohorts were also relatively high in the Grade 11 College and Workplace Mathematics courses. In the case of all four courses, there was a slight decline in failures by the third time around.

Table 2.10 presents the Grade 12 core Mathematics marks distributions for the first two cohorts of students through the Reorganized Program.

Table 2.10: Mathematics Marks Distributions (% Grade 12 Students: 2002-03 to 2003-04)[a]

Course[b]	Year	<50	50	51-55	56-60	61-65	66-70	71-75	76-80	81-85	86-90	>90
MAP4C	2002-03	14.3	6.5	11.7	11.7	11.6	11.4	10.1	8.7	7.2	4.4	2.3
	2003-04	13.2	6.5	11.3	11.2	12.0	11.6	10.5	9.1	7.2	4.7	2.7
MCB4U	2002-03	11.2	3.9	6.9	7.4	8.2	9.5	9.8	10.5	10.8	9.8	12.0
	2003-04	11.4	4.1	6.9	7.4	8.2	9.4	10.2	11.0	10.6	9.6	11.2
MCT4C	2002-03	11.6	6.1	9.6	11.2	12.5	12.4	11.1	9.7	7.3	5.3	3.2
	2003-04	9.6	5.5	9.8	10.8	11.8	12.1	12.0	10.8	8.4	5.7	3.6
MDM4U	2002-03	7.0	2.9	6.9	8.3	9.6	11.2	12.4	12.2	11.5	9.8	8.1
	2003-04	7.1	3.0	6.5	7.9	10.2	11.7	12.7	12.1	11.4	9.4	8.1
MEL4E	2002-03	11.2	6.2	10.6	11.5	12.2	12.8	11.7	10.0	7.3	4.4	2.1
	2003-04	11.9	6.2	11.1	10.7	12.3	11.8	11.4	9.9	7.4	4.7	2.6
MGA4U	2002-03	7.2	2.8	4.7	5.8	7.3	9.2	10.4	12.4	13.2	12.9	14.1
	2003-04	6.5	2.5	5.0	5.3	7.4	9.5	10.5	13.1	13.3	12.4	14.5

[a] This analysis is based on data from Information Management Group, Ontario Ministry of Education.

[b] MAP4C – College & Apprenticeship Mathematics, MCB4U – Advanced Functions & Introductory Calculus, MCT4C – Mathematics for College Technology, MDM4U – Mathematics for Data Management, MEL4E – Mathematics for Everyday Life, MGA4U – Geometry & Discrete Mathematics.

Although failure rates were generally lower than in the previous program, Workplace course failure rates were higher than in Basic courses in the past. There was a notable improvement in achievement for the second cohort in Mathematics for College Technology (MCT4C).

c. Science Marks Distributions – Grades 9, 10, 11 and 12

Table 2.11 indicates that success rates in Grade 9 Science improved over the first four cohorts of students, although failure rates remained substantial in Grade 9 Essentials and Applied courses. A very high proportion of Grade 9 Academic Science students were successful, especially in 2003-04.

Table 2.11: Science Marks Distributions (% Grade 9 Students: 1999-00 to 2003-04)*

Course	Year	<50	50	51-55	56-60	61-65	66-70	71-75	76-80	81-85	86-90	>90
SNC14	1999-00	15.0	6.8	9.2	11.6	12.3	12.4	13.1	8.9	6.6	3.5	0.8
(Essentials)	2000-01	19.2	6.3	10.9	11.0	12.2	12.5	11.4	7.8	5.4	2.3	1.0
	2001-02	17.0	6.5	11.7	11.1	12.5	11.4	11.2	8.5	6.1	2.9	1.2
	2002-03	15.0	7.1	11.1	11.2	12.4	12.3	11.9	9.3	5.9	2.7	1.2
	2003-04	11.7	6.8	10.3	11.8	12.2	12.8	11.8	10.2	7.1	3.8	1.5
SNC1P	1999-00	15.9	7.6	13.0	12.8	12.9	11.8	10.2	7.4	4.7	2.4	1.1
(Applied)	2000-01	18.1	7.8	13.4	13.0	13.1	11.2	10.0	6.7	4.1	1.9	0.7
	2001-02	19.5	7.5	13.4	12.4	13.1	11.4	9.5	6.6	4.0	1.9	0.7
	2002-03	14.0	7.5	13.7	13.1	13.4	12.5	10.6	7.6	4.6	2.2	0.8
	2003-04	12.0	7.2	13.5	13.3	13.9	12.9	11.4	7.6	5.0	2.4	0.9
SNC1D	1999-00	5.5	3.6	7.7	9.1	10.9	12.7	13.3	12.6	11.2	8.4	5.0
(Academic)	2000-01	6.0	3.6	7.8	9.3	11.4	13.0	13.4	12.5	10.8	7.6	4.6
	2001-02	6.3	3.4	7.6	9.0	11.3	12.5	13.2	12.7	11.4	8.0	4.6
	2002-03	4.4	3.3	7.3	9.0	11.1	12.7	13.5	13.0	11.8	8.7	5.2
	2003-04	3.7	3.1	7.2	8.9	11.2	12.7	13.7	13.3	12.0	8.7	5.3

* This analysis is based on data from Information Management Group, Ontario Ministry of Education.

The pattern in Grade 10 Science was similar to that of Grade 9 – relatively high failure rates in the Applied and Essentials courses with very few students obtaining high marks and relatively low failure rates in the Academic courses (see Table 2.12). Failure rates had declined by the fourth cohort.

Table 2.12: Science Marks Distributions (% Grade 10 Students: 2000-01 to 2003-04)*

Course	Year	<50	50	51-55	56-60	61-65	66-70	71-75	76-80	81-85	86-90	>90
SNC23/ SNC24 (Essentials)	2000-01	15.8	5.4	9.4	8.7	12.7	11.5	13.2	11.0	7.4	3.5	1.4
	2001-02	18.3	5.9	11.4	11.8	12.1	12.1	10.7	8.0	5.1	3.3	1.2
	2002-03	17.4	7.2	11.9	12.1	10.4	11.0	10.7	8.7	6.2	3.6	0.8
	2003-04	15.1	7.7	10.7	10.5	11.6	11.8	11.3	9.8	5.8	3.9	1.7
SNC2P (Applied)	2000-01	17.3	7.7	14.0	13.7	13.8	11.8	9.3	6.3	3.7	1.7	0.6
	2001-02	19.1	7.6	14.3	13.3	13.5	11.6	9.2	5.9	3.4	1.6	0.5
	2002-03	17.2	7.8	13.8	13.3	13.7	11.8	9.6	6.6	3.9	1.7	0.6
	2003-04	15.2	7.2	13.3	13.5	14.0	12.5	10.3	7.0	4.3	2.0	0.7
SNC2D (Academic)	2000-01	7.3	3.8	8.5	9.8	11.6	12.3	12.8	11.7	10.1	7.5	4.7
	2001-02	8.2	3.9	8.6	9.8	11.3	12.3	12.5	11.5	10.1	7.3	4.5
	2002-03	7.3	3.7	8.1	9.6	11.2	12.1	12.5	11.9	10.6	7.8	5.1
	2003-04	6.1	3.4	8.1	9.4	11.4	12.4	12.8	12.2	11.1	8.1	5.0

* This analysis is based on data from Information Management Group, Ontario Ministry of Education.

When viewing the marks distributions for the three cohorts of Grade 11 in Science (see Table 2.13), it must be remembered that enrolments are small in SNC3E and SNC3C, and that a Technology course could also meet the Science/Technology requirement:

> *1 additional credit in science (Grade 11 or 12)* or *technological education (Grades 9–12)*
>
> Ministry of Education: 3.1.1 Compulsory Credits [total of 18]

Table 2.13: Science Marks Distributions (% Grade 11 Students: 2001-02 to 2003-04)[a]

Course[b]	Year	<50	50	51-55	56-60	61-65	66-70	71-75	76-80	81-85	86-90	>90
SBI3C	2001-02	13.9	5.8	12.1	13.5	13.7	13.2	11.2	8.0	4.9	2.6	1.2
	2002-03	13.8	6.0	11.6	12.4	12.6	13.3	11.1	8.8	5.9	3.0	1.5
	2003-04	12.7	6.2	11.2	12.5	13.7	12.7	11.0	8.4	5.9	3.8	1.8
SBI3U	2001-02	6.8	3.1	7.2	8.9	10.6	12.0	12.6	12.5	11.3	8.7	6.4
	2002-03	6.4	3.0	7.2	8.9	10.4	11.8	12.3	12.3	11.7	9.1	6.7
	2003-04	5.7	2.9	6.7	8.5	10.7	12.0	12.7	12.7	11.9	9.3	6.8
SCH3U	2001-02	9.8	3.6	7.2	7.9	9.2	10.3	11.3	11.8	11.5	9.6	7.8
	2002-03	9.3	3.3	7.2	7.8	8.9	10.6	11.5	11.9	11.8	9.8	7.8
	2003-04	8.4	3.5	7.0	7.8	9.2	10.6	11.8	12.4	11.6	9.7	7.9
SNC3E	2001-02	16.3	6.3	10.9	12.1	13.2	11.1	11.5	7.7	6.6	2.9	1.4
	2002-03	17.7	6.1	10.7	11.5	12.1	12.2	10.7	8.9	6.0	2.9	1.2
	2003-04	15.7	6.7	9.9	11.0	11.9	12.1	11.9	9.4	6.3	3.3	1.8
SNC3M	2001-02	11.7	4.5	9.4	10.9	12.2	13.4	11.0	10.6	8.5	4.9	3.0
	2002-03	13.5	4.4	9.1	10.0	12.2	12.4	12.9	10.9	7.6	4.5	2.6
	2003-04	11.6	4.4	9.1	9.6	11.7	12.8	12.6	10.9	8.4	6.1	2.8
SPH3U	2001-02	7.5	3.1	6.7	8.4	10.0	11.3	12.7	12.7	11.6	9.3	6.8
	2002-03	7.6	3.2	6.7	8.2	10.1	11.2	12.6	12.6	12.0	9.0	7.0
	2003-04	6.8	3.2	6.5	8.0	9.9	11.7	12.9	13.0	11.9	9.4	6.7

[a] This analysis is based on data from Information Management Group, Ontario Ministry of Education.

[b] SBI3C – College Biology, SBI3U – University Biology, SCH3U – University Chemistry, SNC3E – Workplace Science, SNC3M – University/College Science, SPH3U – University Physics.

Overall, there was an increase in success rates in the six Science courses. Success rates were notably high in the University courses but far less so in the others.

Table 2.14 indicates that Grade 12 University Science failure rates in the four courses were also quite low, especially in comparison with those of the previous program, and relatively few students obtained low marks. There was little change in the marks distributions in the eight courses for the second cohort, with the exception of SNC4M that very few students were taking. Again, failure rates were above average in the College and Workplace courses.

Table 2.14: Science Marks Distributions (% Grade 12 Students: 2002-03 to 2003-04)[a]

Course[b]	Year	<50	50	51-55	56-60	61-65	66-70	71-75	76-80	81-85	86-90	>90
SBI4U	2002-03	5.1	2.5	5.5	6.9	8.4	10.7	12.4	13.3	13.7	12.2	9.2
	2003-04	5.5	2.4	5.3	6.7	7.8	11.0	12.6	14.0	13.7	11.8	9.1
SCH4C	2002-03	13.2	6.0	10.3	10.1	11.7	12.3	11.3	9.5	7.8	5.0	2.7
	2003-04	15.0	5.5	10.2	10.5	11.2	11.3	10.7	9.5	7.6	5.6	2.8
SCH4U	2002-03	6.1	2.7	5.4	6.7	8.6	10.6	12.5	13.9	13.4	11.0	9.2
	2003-04	6.6	2.6	5.6	6.8	8.8	10.8	12.4	13.6	13.4	11.1	8.3
SES4U	2002-03	6.7	4.2	5.1	7.2	8.5	11.7	13.4	13.4	12.4	10.1	7.3
	2003-04	7.0	3.1	6.1	6.7	8.7	11.7	12.9	13.4	14.1	10.7	5.6
SNC4E	2002-03	12.3	5.6	10.2	10.2	8.6	15.3	12.5	10.9	6.5	4.9	3.2
	2003-04	11.4	5.2	9.6	8.7	11.6	14.1	14.0	11.5	9.0	4.0	1.1
SNC4M	2002-03	6.8	4.7	7.9	8.8	10.3	13.0	12.7	12.7	11.4	7.2	4.5
	2003-04	5.7	2.3	4.7	5.5	8.9	10.8	12.3	14.7	13.4	11.6	10.4
SPH4C	2002-03	12.2	5.2	10.3	11.0	11.6	12.7	12.2	10.3	7.8	4.2	2.5
	2003-04	12.5	5.3	9.9	11.6	12.0	12.7	11.9	10.3	7.3	4.6	2.0
SPH4U	2002-03	5.7	2.4	4.9	6.2	8.2	10.2	12.1	14.2	13.7	11.9	10.5
	2003-04	6.2	2.5	4.8	6.4	8.2	10.5	12.4	13.6	13.8	11.4	10.3

[a] This analysis is based on data from Information Management Group, Ontario Ministry of Education.

[b] SBI4U – University Biology, SCH4C – College Chemistry, SCH4U – University Chemistry, SES4U – Earth & Space Science, SNC4E – Workplace Science, SNC4M – University/College Science, SPH4C – College Physics, SPH4U – University Physics.

d. Other Courses

Each course can be examined for its effect on the quality of learning and on credit accumulation, although the required courses in particular have the greatest impact. Two courses that exemplify the importance of this matter are Grade 9 Geography and Grade 10 History (see Tables 2.15 and 2.16).

Table 2.15: Geography Marks Distributions (% Grade 9 Students: 1999-00 to 2003-04)*

Course	Year	<50	50	51-55	56-60	61-65	66-70	71-75	76-80	81-85	86-90	>90
CGC1P	1999-00	13.7	6.6	12.1	11.9	12.4	12.4	11.4	9.1	5.9	3.2	1.4
(Applied)	2000-01	15.9	7.1	12.1	12.1	12.6	12.2	10.8	8.0	5.3	2.7	1.1
	2001-02	17.2	7.0	11.9	11.6	12.8	12.0	10.7	7.8	5.2	2.7	1.0
	2002-03	13.0	7.0	12.3	12.0	13.0	12.5	11.7	8.7	5.8	2.8	1.2
	2003-04	11.1	6.9	11.9	12.3	13.3	13.3	12.1	9.1	5.9	2.9	1.3
CGC1D	1999-00	3.9	3.0	6.3	8.0	10.4	12.9	14.6	14.5	12.7	9.0	4.8
(Academic)	2000-01	4.7	3.2	6.5	8.2	10.6	12.7	14.3	14.0	12.4	8.7	4.8
	2001-02	4.8	2.8	6.1	7.8	10.2	12.7	14.4	14.5	12.8	8.9	5.0
	2002-03	3.3	2.8	6.0	7.7	10.1	12.7	14.6	14.7	13.2	9.4	5.5
	2003-04	2.7	2.5	5.6	7.3	10.4	12.7	14.9	14.8	13.7	9.8	5.5

* This analysis is based on data from Information Management Group, Ontario Ministry of Education.

In both Applied Geography and History courses, high marks were rare and failure rates were substantial over the five years. Failure rates were quite low for all cohorts in both Academic courses and nearly 60 percent of the students obtained marks above 70 percent.

Table 2.16: History Marks Distributions (% Grade 10 Students: 2000-01 to 2003-04)*

Course	Year	<50	50	51-55	56-60	61-65	66-70	71-75	76-80	81-85	86-90	>90
CHC2P	2000-01	14.5	6.6	12.0	12.0	13.3	13.0	11.1	8.3	5.3	2.6	1.3
(Applied)	2001-02	17.4	6.3	12.0	12.1	12.6	12.4	11.0	7.9	5.0	2.4	1.0
	2002-03	16.1	6.7	11.8	12.0	12.5	12.5	10.9	8.3	5.4	2.5	1.2
	2003-04	14.6	6.6	11.6	11.7	12.6	13.1	11.4	8.7	5.6	2.8	1.2
CHC2D	2000-01	4.6	2.7	5.9	7.4	9.9	12.1	14.2	14.5	13.3	9.6	5.8
(Academic)	2001-02	5.6	2.7	5.9	7.3	9.8	12.0	14.1	14.4	13.1	9.2	5.9
	2002-03	5.1	2.6	5.6	7.0	9.3	12.1	14.0	14.6	13.6	9.9	6.2
	2003-04	4.1	2.3	5.3	6.8	9.5	12.1	14.3	15.1	14.0	10.4	6.2

* This analysis is based on data from Information Management Group, Ontario Ministry of Education.

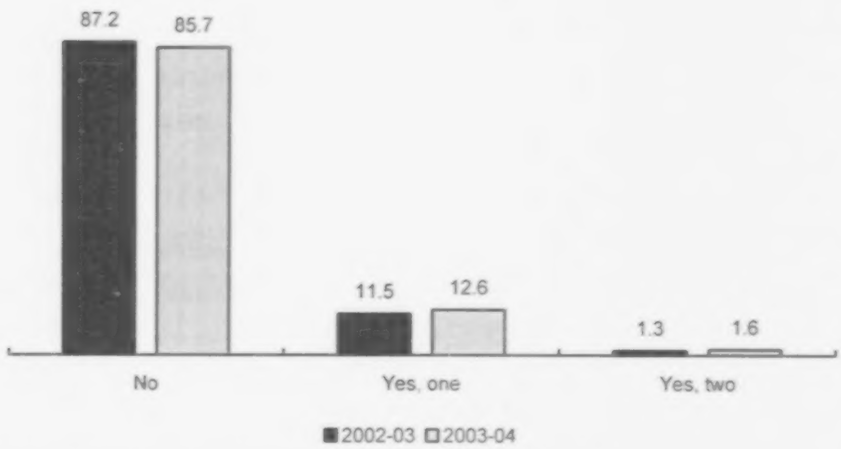
This difference, explained above, in achievement between Academic and Applied occurs in almost every Grade 9 and 10 course, and leads to sharp differences in credit accumulation between those students who take mainly Academic courses and those who take mainly Applied.

Grade 9 and 10 Open courses that are required for graduation enrol students who may be taking mainly Academic or Applied or even Essentials courses in the rest of their program. Typically these students are integrated in the same classroom. The failure rate in such courses is likely to be much higher for students taking Applied and Essentials core courses than for those taking Academic core courses. To illustrate this point, let us use student achievement in CHV2O (Grade 10 Civics) in 2003-04. Students taking mostly Academic courses across the province had an average mark of 77.7 percent and a failure rate of 1.5 percent in the course; for students taking mostly Applied courses, the equivalent figures were 57.4 and 16.6 percent; and, for students taking mostly Essentials courses, 53.9 and 24.9 percent. This unintended outcome places the latter two groups of students even more at risk of not graduating.

4. Role of Summer School Courses in Student Progress

Summer school represents an additional opportunity for failing students to make up lost credits and to remain on track toward graduation. However, rapid growth in summer school course enrolments such as we have seen since the introduction of the Reorganized Secondary School Program may also indicate that there are curriculum concerns with the regular school program. Nevertheless, credits obtained in summer school do facilitate student progress toward graduation and must be included as part of the equation. There are two interrelated issues: the number of credits taken during summer school and the characteristics of the students who enrol in summer school. That is, do the students who are most at risk of not graduating take full advantage of summer school? Figures 2.21 and 2.22 summarize the responses of Grade 12 students (in 2003-04) to survey questions on the number of summer school courses taken, and their reasons for taking them. Their responses are compared with those from the previous Grade 12 students (in 2002-03).

Figure 2.21: Took Summer School Course(s) Last Summer (% Grade 12 Students; 2002-03 & 2003-04)



Source: Double Cohort Surveys: Phases 3 & 4 – Grade 12

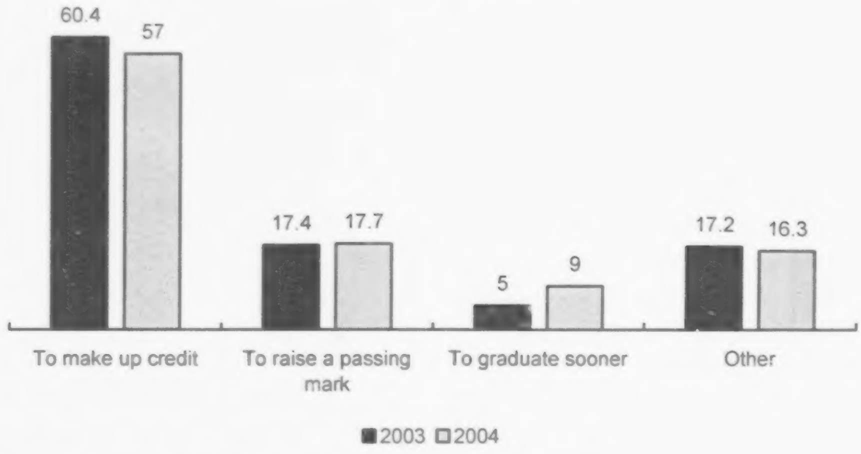
A slightly higher proportion of the Grade 12 students in the second cohort of the Reorganized Program (2003-04) took at least one summer school course in the previous summer. Nearly 30 percent of the Grade 12 students had taken at least one summer school course in total and 11 percent of them had taken two or more courses throughout their years in secondary school (see Table 2.17). Students were most likely to take a summer school course in the summer after Grade 11.

Table 2.17: Total Summer School Credits Successfully Completed (% Grade 12 Students; 2003-04)

# Summer Courses Completed	% Grade 12 Students
0	71.0
1	17.8
2	7.0
3	2.2
4 or more	1.9

Source: Double Cohort Survey: Phase 4 – Grade 12

Figure 2.22: Reason Took Summer School Course(s) (% Grade 12 - 2003 & 2004)



Source: Double Cohort Surveys: Phases 3 & 4 – Grade 12

Figure 2.22 indicates that almost three-fifths of the Grade 12 students in both cohorts who took summer school courses after Grade 11 did so to make up a credit, with slightly fewer of those in the second cohort (2003-04) reporting this. There were no differences in the proportions of Grade 12 students across the two cohorts who stated that they took summer school courses to raise a passing mark (close to one-fifth of them). Slightly more of the second cohort of these students took the summer school course to graduate sooner although the proportion was small. A review of the Ministry of Education data file indicated that many students with substantial credit loss did not take summer school courses. Nevertheless, summer school plays a significant role for many students in their progress toward graduation.

5. The Literacy Test Requirement

The role of the Literacy Test (OSSLT) in student progress toward graduation has been controversial. In fact, it has been a litigious issue based on the contention that certain broad categories of students who would be able to obtain an OSSD on the basis of course achievement would not be able to obtain the OSSD because of a lack of success on the Literacy Test.

In theory, we could combine the data files on student achievement in school courses with their achievement from the Literacy Test or its equivalent. This would enable us to determine how many students had completed all graduation requirements except the Literacy Test after four and five years in the Reorganized Program. In addition, we could determine whether such students fall into the broad categories of those at risk, e.g., aboriginal students, special needs students. While the integration of the two files is possible, it has not been done to date. However, at least one school board has linked the two student achievement data files. The following Table 2.18 presents credit accumulation information for Grades 9 and 10 achievement in the first Literacy Test from one school board. Most noticeable, of course, is the lack of success of students who took Applied and Essentials courses, but even those students who had taken Academic courses, completed 16 or more courses successfully and were clearly on track to graduate only had an 80 percent success rate on the test. It is entirely possible that some of these students would continue on to meet the course requirements for graduation but not meet the Literacy requirements.

Table 2.18: Relationship Between Grade 10 Credit Accumulation, Type of Course Taken & Success on the Literacy Test (2002 – Large Ontario Board)

Credits	% Literacy Test Success	Type of Course	% Literacy Test Success
16 or more	80	Academic	80
15	53	Applied	25
14	43	Essentials	3
13	34		

Source: A large Ontario District School Board.

Options for meeting the Literacy requirements and the test itself have evolved over the past two years. First in 2003-04 the requirements could be met by successfully completing a Literacy course (OSSLC – usually taken in Grade 12) after two failures of the Literacy Test, then the test time was reduced in length. Subsequently, in 2004-05 the course could be taken in Grade 11 after one failing Literacy Test. At the same time an adjudication process was introduced for those students who did not have access to the course.

Ultimately, the 'Literacy' requirements should prove to be an obstacle to very few students and should have little effect on graduation rates.

6. The 5th Year Student

Why do students return for a fifth year if they have already met graduation requirements and, in subsequent years will they continue to do so in proportions similar to the first cohort as four years to graduation becomes the norm? Will the proportions of students returning for a fifth year decline to proportions similar to those in other provinces? Answers to these questions could influence graduation rates.

It has been argued that students who have stayed in secondary school for a fifth year do so in order to acquire broader secondary school experience and/or to allow them time to mature before continuing to post-secondary education. However, if these arguments are not made in other provinces and the U.S.A., why would it need to be made in Ontario?

About one-third of the original Grade 9 first cohort returned to secondary school for a fifth year. Males made up 60 percent of the group returning for a fifth year. The returning proportions of first cohort students were much higher than was the case in other provinces with a similar form of organization; that is, those proportions ranged between 15 and 20 percent.

a. Reasons for Returning

The 5th Year students were asked in the survey why they returned and their responses are summarized in Table 2.19.

Table 2.19: Reasons Returned for a 5th Year (% Students; 2003-04)

Reason	%*
Complete graduation requirements	52.1
Raise marks to apply to college	12.2
Raise marks to apply to university	20.7
Take additional courses	27.7
Other	12.1

* Students could indicate more than one response; therefore, percentages do not add up to 100 percent.

Approximately one-third of the 5th Year students indicated that they returned to raise their marks in order to be more successful in applying to college or university. Over one-half of them said they returned to complete graduation requirements, e.g., to repeat a failed course, or to meet a particular course requirement. A substantial number indicated that they returned to take an additional course(s) or program, e.g., Music, Cooperative Education, Arts Program, Baccalaureate Program. Few students indicated that they came back in order to play secondary school sports for one more year.

b. Academic Achievement

In order to describe the academic achievement of the 5th Year returnees, we employed the Ministry of Education marks data file and the survey responses of students from our basic schools sample who were still in school for a fifth year.

Table 2.20 presents the average Grade 12 marks of the first cohort students enrolled in their fifth year in Ontario secondary schools compared to those of non-returnees.

Table 2.20: Grade 12 Average Marks: 4th Year Graduates Who Left School Compared with 5th Year Returnees

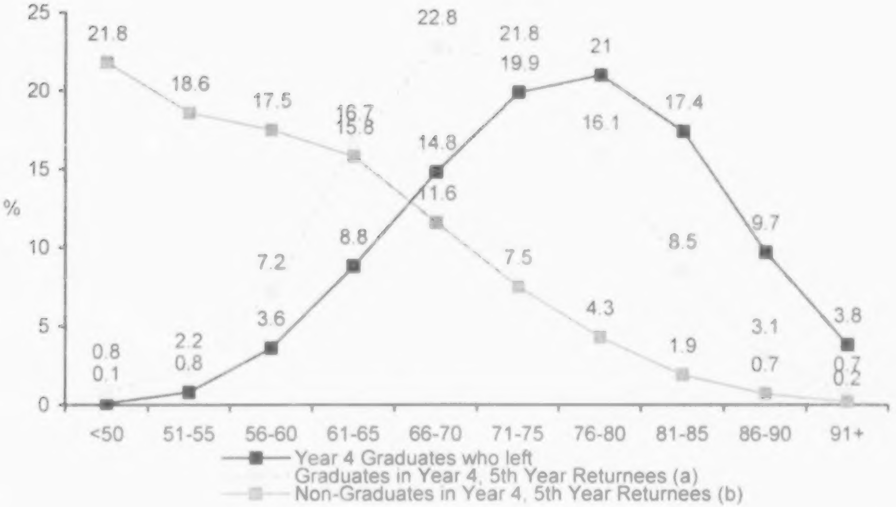
Year	Grade 12 Average Marks
4th Year Graduates (not returnees)	76.1
5th Year Returnees (not 4th year graduates)	58.6
5th Year Returnees (4th year graduates)	71.1

Source: Ministry of Education data file.

The average Grade 12 marks of first new cohort graduates who returned for a fifth year were lower compared to those of graduates who left school (71% vs 76%). The Grade 12 marks of fifth year returnees who had not graduated in fourth year were considerably lower (58.6%).

Figure 2.23 presents the Grade 12 marks distributions and average marks of the first cohort of students: some who graduated after Grade 12 and left school, and some who returned for a fifth year with and without graduation diplomas.

Figure 2.23: Grade 12 Marks Distributions: 4th Year Graduates Who Left School Compared with 5th Year Returnees Who Graduated & Who Had Not Graduated



Generally speaking and as shown in Table 2.20, the students who graduated in four years and left secondary school had higher marks than those who graduated and returned for a fifth year. There was substantial overlap between the two groups and their average marks differed by five percentage points. Nevertheless, many of the returning four-year graduates would have met the admission requirements of most university programs. The majority of returning non-graduates had relatively low Grade 12 course averages – 21.8 percent had a failing average and 57.9 percent had an average of 60 percent or less. Still, over 40 percent of this group graduated by the end of their fifth year.

c. Post-Secondary Plans

Table 2.21 presents the post-secondary plans of the 5th Year returnees, as well as the plans they had when in Grades 10 and 12.

Table 2.21: Post-Secondary Plans (% 5th Year Students in 2003-04 When in Grades 10 & 12)

Post-Secondary Plans	Grade/Year		
	Grade 10[a] (2001-02)	Grade 12[b] (2002-03)	5th Year (2003-04)
Not graduate	0.7	0	1.2
Grad and work	6.3	7.9	11.9
College	23.6	36.7	38.5
University	54.5	44.3	32.9
Grad and apprenticeship	3.2	4.3	5.6
Other	3.5	3.7	5.7
Uncertain	8.1	3.2	4.2

[a] 1st new cohort in Phase 2, Double Cohort Survey (2001-02).
[b] 1st new cohort in Phase 3, Double Cohort Survey (2002-03).

The proportion of 5th Year students who planned to attend college increased in contrast to the proportion of them with the same plans in Grade 10, and correspondingly the proportion who planned on university decreased.

D. Summary

The five-year graduation rate of the last two cohorts through the previous program was approximately 78 percent. The four-year graduation rate of the first cohort through the Reorganized Program was 57 percent (the second cohort 59%), and the five-year graduation rate approximately 70 percent.

The Reorganized Program's goal to improve the graduation rate has not been met by the first cohort through the program. If improvement means a four-year graduation rate that is greater than the five-year rate of the previous program, it will not be achieved by the first five cohorts through the Reorganized Program. If the goal is to reach an equivalent or greater five-year graduation rate, it could be achieved in five years as a result of curriculum changes currently in place or underway. The major factor in the currently low graduation rate is the high incidence of failed Applied and Essentials courses in Grades 9 and 10, and the relatively high incidence of failed College and Workplace courses in Grades 11 and 12. It also must be noted that, by comparison, most other provinces do not introduce their credit system until Grade 10; that is, students enrol in Grade 10 with a clean slate (i.e., no failing grades). The substantial failure by Ontario students in Grade 9 is a major contribution to the low graduation rate. About one-eighth of students take summer school courses (after Grade 9, Grade 10, Grade 11 or Grade 12), the majority do so to make-up for credit loss, but some, to raise marks. Many students who were a risk of not graduating did not take summer school courses.

One of the ironies of this analysis is the outcome of an increased pool of students qualified for university (fortunately coinciding with an increase in available spaces at Ontario universities). The effort to make course types very similar in content and expectations has contributed to sharp differences in course success rates between Academic and Applied courses, and University, College and Workplace courses. The situation is exacerbated in Open and University/College courses where University-bound students achieve the greatest success and the others the least. The increase in the size of the university-bound pool of students is accompanied by a decline or 'flat lining' in the proportions of college-bound groups and a sharp increase in the proportion of non-graduates.

The decline in failure rates over the first few cohorts is mitigated to some extent by a reduction in the numbers of students in Academic and University courses, but not enough to offset the declining failure rates. That is, the decline in failure rates will still improve graduation rates, but less than it might have without the slight decline in enrolments in Academic and University courses.

Chapter III Course Offerings and Delivery

A. Introduction

Changing enrolments in Grades 9 and 10 core Academic courses (English, Mathematics, Science), and to a lesser extent in Grades 11 and 12, have been noted (in Chapter II) as the system moves towards some equilibrium. These changes are characterized by fewer students taking Academic and University courses, and more changes will occur as Grade 10 core Essentials courses are widely implemented (i.e., they become Locally Developed Credit courses for 2004-05).

In this chapter, we examine the Grades 11 and 12 courses that were offered in 92 English schools as well as the student enrolments in those courses across the province. We also refer to factors that may influence those enrolments. How do school administrators decide what courses to offer and what to deliver from the 160+ courses available in Grades 11 and 12 (not including the variants in the Arts and Physical Education that could be offered)? Do they allow students to choose from the full range of courses and then only deliver those courses that meet minimum enrolment requirements? Do they decide what courses are most likely to be viable and offer only those? To what extent do they take staffing issues or subject department recommendations into consideration? Some of these questions were addressed in Part IV of the Phase 3 report. More specifically in this report, answers to the following questions are addressed:

1. Which courses draw little interest on the part of students and as a result are offered in few schools?
2. Are there courses which are prerequisites (or strongly recommended) for college and university programs that may not be available to students in all schools?
3. How effective is destination-based programming in Grades 11 and 12, that is, courses and course sequences that prepare students for work, college and university?

An analysis of a sample of 92 school calendars, course offerings and first and second semester timetables for the 2003-04 school year enables a view of the variability in course offerings and delivery across the province. In addition, we have summarized course enrolments for all schools that submitted valid transcript information to the Ministry of Education in 2003-04.

A discussion of enrolments in Cooperative Education and the Ontario Youth Apprenticeship Program (OYAP) is presented in Chapter V.

B. Course Enrolments

1. English, Mathematics, Science

We noted in Chapter II the trends across cohorts in the proportions of Grades 9 and 10 students enrolled in the Academic core courses: English, Mathematics and Science.

With regard to English, Table 3.1 reveals that all or almost all of the schools offered University and College English. Provincially, similar proportions of students enrolled in each of them in both Grades 11 and 12 – just over one-half of students enrolled in the former in both grades while slightly over one-third enrolled in the latter in both grades.

Table 3.1: Grades 11 & 12 Courses in English – Schools Offering (92 Schools) & Provincial Enrolments (%; 2003-04)

English		Schools Offering Course		Provincial Enrolment[a] %
		n	%	
EBT4O	Communication in the World of Business & Technology	9	9.8	1.9
ELS3O	Literacy Skills: Reading & Writing	33	35.9	4.1
EMS3O	Media Studies	64	69.6	12.8
ENG3C	English	90	97.8	34.1
ENG3E	English	56	60.9	5.4
ENG3U	English	92	100.0	57.6
ENG4C	English	91	98.9	37.2
ENG4E	English	57	62.0	4.1
ENG4U	English	90	97.8	55.9
EPS3O	Presentation & Speaking Skills	7	7.6	0.9
ETC3M	Canadian Literature	0	0.0	0.1
ETS4C	Studies in Literature	3	3.3	0.3
ETS4U	Studies in Literature	26	28.3	3.9
EWC4C	The Writer's Craft	16	17.4	1.3
EWC4U	The Writer's Craft	70	76.1	11.2

U = University; C = College; E = Workplace; M = University/College courses

[a] Percentages are based on the proportion of students in the grade taking the course based on a provincial enrolment in Grade 11 of 144,099 and in Grade 12 of 138,575.

Enrolments in the non-core English courses were relatively small. The two of these courses taken by the largest proportion of students were Grade 11 Open Media Studies (12.8%) and Grade 12 University The Writer's Craft (11.2%). Student enrolments in this (10 to 12% of students) range make it feasible for schools with over 750 students to offer these courses, but they are unlikely to be offered by schools with a smaller enrolment.

Approximately three-fifths of the 92 schools offered the Grades 11 and 12 Workplace English; the proportions of students who took these courses across the province were 5 and 4 percent, respectively. The average class size for Grade 11 Workplace English was approximately 12, with a similar average for Grade 12 Workplace English. This number falls well below the number of students required to ensure that a course is viable, and to offer such an undersubscribed course requires concessions in class size in other senior courses when the minimum number of students required is higher. (Further discussion of Workplace courses takes place in subsection 12, pp.71-75.)

Table 3.2 presents the 2003-04 course delivery and enrolments in Grade 11 Mathematics.

Table 3.2: Grades 11 & 12 Courses in Mathematics – Schools Offering (92 Schools) & Provincial Enrolments (%; 2003-04)

Mathematics		**Schools Offering Course**		**Provincial Enrolment[a] %**
		n	%	
MAP4C	College & Apprenticeship Mathematics	88	95.7	19.9
MBF3C	Mathematics of Personal Finance	92	100.0	35.4
MCB4U	Advanced Functions & Introductory Calculus	91	98.9	31.7
MCF3M	Functions	88	95.7	26.9
MCR3U	Functions & Relations	86	93.5	27.6
MCT4C	Mathematics for College Technology	53	57.6	4.2
MDM4U	Mathematics & Data Management	84	91.3	21.0
MEL3E	Mathematics for Everyday Life	79	85.9	13.0
MEL4E	Mathematics for Everyday Life	78	84.8	6.3
MGA4U	Geometry & Discrete Mathematics	84	91.3	11.1

U = University; C = College; E = Workplace; M = University/College courses

[a] Percentages are based on the proportion of students in the grade taking the course based on a provincial enrolment in Grade 11 of 144,099 and in Grade 12 of 138,575.

All schools enrolled students in Grade 11 College Mathematics of Personal Finance, and all but one offered the Grade 12 Functions and Calculus. All but a few offered the other Grade 11 University (Functions and Relations – MCR3U) and the other two Grade 12 courses – University Mathematics of Data Management (MDM4U) and Geometry & Discrete Mathematics (MGA4U). Interestingly, a few of the smaller schools chose to offer the Grade 11 University/College Mathematics rather than the University Mathematics. The surprisingly low offerings and enrolments in Mathematics for College Technology (MCT4C) were related to the prerequisite for the course (Functions and Relations – MCR3U or Functions – MCF3M) – courses not typically taken by college-planning students.

Workplace Mathematics (in Grades 11 & 12) was offered in over 80 percent of the schools; consequently, in some schools, students would be able to take Workplace Mathematics, but not Workplace English. For some students, the Grade 11 Workplace Mathematics course served as an easier route to meet the third Mathematics credit requirement. Grade 12 Workplace Mathematics appears on a few college applicants' transcripts.

Table 3.3 presents the number of schools in the group of 92 that offered the Grades 11 and 12 Science courses and the percentage of students enrolled in them across the province. The Ministry requires that students earn a Grade 11 or 12 Science credit OR a Grade 9, 10, 11 or 12 Technological Education credit to meet one of the 18 compulsory credit requirements for the diploma.

Table 3.3: Grades 11 & 12 Courses in Science – Schools Offering (92 Schools) & Provincial Enrolments (%; 2003-04)

Science		Schools Offering Course		Provincial Enrolment[a]
		n	%	%
SBI3C	Biology	89	96.7	14.5
SBI3U	Biology	91	98.9	34.5
SBI4U	Biology	90	97.8	19.6
SCH3U	Chemistry	90	97.8	32.0
SCH4C	Chemistry	71	77.2	7.3
SCH4U	Chemistry	90	97.8	20.8
SES4U	Earth & Space Science	6	6.5	1.8
SNC3E	Science	50	54.3	5.2
SNC3M	Science	17	18.5	3.2
SNC4E	Science	8	8.7	0.6
SNC4M	Science	9	9.8	1.1
SPH3U	Physics	90	97.8	22.4
SPH4C	Physics	50	54.3	4.0
SPH4U	Physics	80	87.0	13.5

U = University; C = College; E = Workplace; M = University/College courses

[a] Percentages are based on the proportion of students in the grade taking the course based on a provincial enrolment in Grade 11 of 144,099 and in Grade 12 of 138,575.

All or almost all of the 92 schools offered Grade 11 University and College Biology, University Chemistry and Physics and Grade 12 University Biology and Chemistry, while fewer offered Grade 12 University Physics (87%) and Grade 12 College Chemistry (77.2%) and Physics (54.3%). Under one-fifth of the schools offered University/College Science in Grade 11 and even fewer (9.8%) offered it in Grade 12.

Workplace Science in Grade 11 is offered in about half of the schools while very few offer it in Grade 12 (8 schools only). SNC3M and SNC4M appear to have little utility from both a school and student perspective. Nevertheless, blending these courses with the Workplace Science courses can attract sufficient students to make the courses viable.

2. Business

Table 3.4 presents the Grades 11 and 12 Business courses offered in the sample of 92 schools and the provincial proportion of students who were enrolled in them in 2003-04.

Table 3.4: Grades 11 & 12 Courses in Business – Schools Offering (92 Schools) & Provincial Enrolments (%; 2003-04)

Business		Schools Offering Course		Provincial Enrolment[a] %
		n	%	
BAF3M	Introduction to Financial Accounting	81	88.0	15.8
BAI3E	Introduction to Accounting	12	13.0	1.0
BAN4E	Accounting for a Small Business	2	2.2	0.2
BAT4M	Principles of Financial Accounting	59	64.1	5.9
BBB4E	Introduction to International Business	3	3.3	0.1
BBB4M	Introduction to International Business	29	31.5	7.8
BDI3C	Introduction to Entrepreneurial Studies	49	53.3	8.1
BDP3O	The Enterprising Person	7	7.6	0.8
BDV4C	Entrepreneurial Studies: Venture Planning	5	5.4	0.7
BMI3C	Introduction to Marketing	46	50.0	8.1
BMX3E	Introduction to Retail and Services Marketing	13	14.1	1.3
BOG4E	Organizational Studies: Managing a Small Business	14	15.2	1.5
BOH4M	Organizational Studies: Organizational Behaviour & Human Resources	34	37.0	6.5
BTA3O	Information Technology Applications in Business	67	72.8	11.7
BTX4C	Information Technology in Business	24	26.1	1.9
BTX4E	Information Technology in Business	7	7.6	0.4

U = University; C = College; E = Workplace; M = University/College courses

[a] Percentages are based on the proportion of students in the grade taking the course based on a provincial enrolment in Grade 11 of 144,099 and in Grade 12 of 138,575.

On the whole, Business courses are not offered in many schools and, perhaps not surprisingly, few students take Business. Of the 16 Grades 11 and 12 courses, only five were offered in over half of the schools. Grade 11 Introduction to Financial Accounting (BAF3M) is offered in the largest proportion of schools (88% and taken by 15.8% of students across the province) followed by Grade 11 Information Technology Applications in Business (BTA3O) and Grade 12 Principles of Financial Accounting (BAT4M). Excluding Workplace courses, all of the other Business courses were taught to between less than one percent and 8 percent of students. Workplace courses, as expected, were taught to even fewer. To offer core academic courses to students eligible for Workplace courses presents challenges enough for schools that must compromise required minimum enrolments to offer Workplace English and Mathematics. Although few Workplace Business courses are offered, a substantial number of students will leave school to work in business settings. These findings suggest that a review of Business course offerings and course sequences is urgently required.

3. Technological Education

Table 3.5 presents the schools among the 92 that offer Grade 11 and 12 Technological Education courses and the proportion of students taking these courses across the province.

Table 3.5: Grades 11 & 12 Courses in Technological Education – Schools Offering (92 Schools) & Provincial Enrolment (%; 2003-04)

Technological Education		Schools Offering Course		Provincial Enrolment[a]
		n	%	%
ICE3E	Computer Engineering	9	9.8	0.9
ICE3M	Computer Engineering	36	39.1	4.7
ICE4E	Computer Engineering	7	7.6	0.2
ICE4M	Computer Engineering	23	25.0	2.2
ICS3M	Computer & Information Science	74	80.4	9.9
ICS4M	Computer & Information Science	47	51.1	4.1
TCJ3C	Construction Technology	48	52.2	7.2
TCJ3E	Construction Technology	38	41.3	4.3
TCJ4C	Construction Technology	34	37.0	3.0
TCJ4E	Construction Technology	34	37.0	1.9
TDJ3E	Technological Design	19	20.7	1.3
TDJ3M	Technological Design	54	58.7	7.4
TDJ4E	Technological Design	9	9.8	0.5
TDJ4M	Technological Design	43	46.7	3.1
TFH3E	Hospitality & Tourism	26	28.3	3.7
TFH4E	Hospitality & Tourism	23	25.0	1.9
TFS4C	Tourism	3	3.3	0.5
TFT3C	Hospitality	18	19.6	2.8
TGJ3E	Communication Technology	20	21.7	1.3
TGJ3M	Communication Technology	63	68.5	14.3
TGJ4E	Communication Technology	13	14.1	0.4
TGJ4M	Communication Technology	55	59.8	7.1
TMJ3C	Manufacturing Engineering Technology	32	34.8	4.0
TMJ3E	Manufacturing Technology	34	37.0	3.2
TMJ4C	Manufacturing Engineering Technology	24	26.1	2.0
TMJ4E	Manufacturing Technology	24	26.1	1.4
TPA3C	Health Care	9	9.8	1.3
TPE3E	Hairstyling & Aesthetics	13	14.1	2.6
TPE4E	Hairstyling & Aesthetics	10	10.9	1.0
TPO4C	Child Development & Gerontology	2	2.2	0.5
TPT4C	Medical Technologies	1	1.1	0.5
TTJ3C	Transportation Technology	32	34.8	7.3
TTJ3E	Transportation Technology	46	50.0	6.2
TTJ4C	Transportation Technology	32	34.8	3.4
TTJ4E	Transportation Technology	42	44.6	3.0

U = University; C = College; E = Workplace; M = University/College courses

[a] Percentages are based on the proportion of students in the grade taking the course based on a provincial enrolment in Grade 11 of 144,099 and in Grade 12 of 138,575.

Not all schools have the facilities to offer a full range of Technology courses, in particular Construction, Manufacturing, and Transportation Technologies. As well, traditionally, relatively few schools have had the capacity to offer Hairstyling and Aesthetics course sequences. We would expect to see enrolments not dissimilar to the past in the core Technology areas, and that is essentially the case. The traditional pattern of blending of Technology courses, especially in Grades 11 and 12, and even drawing students from the Grade 10 courses, is necessary to get a sufficient number of students to justify the offering of some Technology courses. Generally, less than half of the 92 schools offer each of the Technology courses and enrolments are small. The exceptions are seven of the 35 courses in four areas: Grades 11 and 12 University/College Computer and Information Science (ICS3M – offered by 80.4% of the schools and ICS4M – 51.1%), Grade 11 University/ College Technological Design (TDJ3M – 58.7%), Grades 11 and 12 University/College Communication Technology (TGJ3M – 68.5% and TGJ4M – 59.8%), Grade 11 Workplace Transportation Technology (TTJ3E – 50%), and Grade 11 College Construction Technology (TCJ3E – 52.2%). However, provincial enrolments are small in all seven courses, the highest being in ICS3M (9.9%) and TGJ3M (14.3%). The Workplace courses are further discussed in subsection 12, pp.71-75.

4. The Arts

Table 3.6 presents offerings and enrolment in The Arts. Enrolments in alternate Arts courses have been incorporated into the basic courses; for example, AMK3M is a music course focusing on keyboard and is typically offered in addition to the basic Music course, AMU3M. Generally speaking, The Arts courses are offered as University/College (M) and Open (O) types, with the Grade 12 Open courses being less viable because they are not recognized for university admissions purposes. Enrolments in the Open Arts courses are relatively small and typically must be combined with the University/College courses to be viable. In the same fashion, enrolments in the specialized fields, e.g., guitar, keyboard and choral, are combined within or across grades. Enrolments in the Grade 12 Open Arts courses are very low and few schools offer them.

Table 3.6: Grades 11 & 12 Courses in The Arts[a] - Schools Offering (92 Schools) & Enrolment (%, 2003-04)

The Arts	Schools Offering Course		Provincial Enrolment[b]
	n	%	%
AD_3M Dramatic Arts	47	51.1	6.1
AD_3O Dramatic Arts	33	34.8	4.1
AD_4M Dramatic Arts	55	58.7	5.7
AD_4O Dramatic Arts	12	13.0	0.7
AM_3M Music	62	67.4	8.4
AM_3O Music	36	39.1	4.7
AM_4M Music	70	76.1	8.0
AM_4O Music	4	4.3	0.1
ASM3O Media Arts	21	22.8	3.5
ASM4O Media Arts	14	15.2	1.2
ATC3O Dance	8	8.7	0.5
ATC4M Dance	10	10.9	0.6
AV&W_3M Visual Arts & Illustration	65	70.7	14.3
AV&W_3O Visual Arts & Illustration	59	64.1	10.9
AV&W_4M Visual Arts & Illustration	82	89.1	15.0
AV&W_4O Visual Arts & Illustration	6	6.5	0.2

U = University; C = College; E = Workplace; M = University/College courses

[a] Arts courses are combined across types for this analysis; e.g., ADA3M and ADD3M are two Dramatic Arts courses offered in different schools shown above as AD_3M.

Also, courses are combined within schools to ensure sufficient enrolment to offer them; e.g., AV13M is combined with AWD3M shown above as AV&W_3M – Visual Arts & Illustration.

[b] Percentages are based on the proportion of students in the grade taking the course based on a provincial enrolment in Grade 11 of 144,099 and in Grade 12 of 138,575.

5. Canadian & World Studies

Table 3.7 presents the Grade 11 and 12 Canadian and World Studies courses offered in the 92 schools as well as the provincial enrolment in each of them.

Although a Geography credit is required in Grade 9 and a History credit in Grade 10, it does not follow that there will be substantial enrolments in these subjects in Grades 11 and 12. While close to four-fifths of the schools offered CGW4U (Canadian & World Issues: A Geographic Analysis), CHW3M (World History to 16th Century) and CHY4U (World History: The West & the World) and slightly over 70 percent of the schools offered CGG3O (Regional Geography: Travel & Tourism), relatively few students actually enrolled in these courses (between 12% and 15.6%). More popular are the two Law courses in Grades 11 and 12

(CLU3M, Understanding Canadian Law offered in 93.5% of the schools and taken by 24.4% of the students across the province; and CLN4U, Canadian & International Law offered in 75% of the schools and taken by 16.9% of students).

Table 3.7: Grades 11 & 12 Courses in Canadian & World Studies – Schools Offering (92 Schools) & Enrolment (%; 2003-04)

Canadian & World Studies		Schools Offering Course		Provincial Enrolment[a] %
		n	%	
CGF3M	Physical Geography: Patterns, Processes & Interactions	41	44.6	5.2
CGG3O	Regional Geography: Travel & Tourism	67	72.8	12.0
CGO4M	Geomatics: Geotechnologies in Action	7	7.6	0.7
CGR4E	Environment & Resource Management	9	9.8	0.7
CGR4M	Environment & Resource Management	19	20.7	3.2
CGT3E	Geographic: The Geographer's Toolkit	4	4.3	0.3
CGU4C	World Geography: Urban Patterns & Interactions	5	5.4	0.7
CGU4U	World Geography: Human Patterns & Interactions	9	9.8	1.4
CGW4U	Canadian & World Issues: A Geographic Analysis	77	83.7	13.1
CHA3U	American History	32	34.8	5.9
CHH3C	Canadian History & Politics Since 1945	0	0.0	0.2
CHH3E	Canadian History & Politics Since 1945	0	0.0	0.2
CHI4U	Canada: History, Identity & Culture	39	42.4	4.9
CHM4E	Adventures in World History	8	8.7	0.8
CHT3O	20th Century History: Global & Regional Perspectives	13	14.1	2.2
CHW3M	World History to the 16th Century	73	79.3	15.6
CHY4C	World History: The West & the World	19	20.7	1.7
CHY4U	World History: The West & the World	75	81.5	13.4
CIA4U	Analysing Current Economic Issues	47	51.1	8.1
CIE3M	The Individual & the Economy	8	8.7	2.1
CLN4U	Canadian & International Law	69	75.0	16.9
CLU3E	Understanding Canadian Law	25	27.2	2.8
CLU3M	Understanding Canadian Law	86	93.5	24.4
CPC3O	Canadian Politics & Citizenship	1	1.1	0.1
CPW4U	Canadian & World Politics	25	27.2	4.6

U = University; C = College; E = Workplace; M = University/College courses

[a] Percentages are based on the proportion of students in the grade taking the course based on a provincial enrolment in Grade 11 of 144,099 and in Grade 12 of 138,575.

In the competition for students, it is not surprising that from the huge array of Grades 11 and 12 Optional courses, some fall by the wayside. The College and Workplace courses, in particular, are offered in very few schools.

Establishing priorities in course offerings in Canadian Studies is particularly difficult for schools. Whatever the decision, the outcome is that important course content is not made available to most Ontario students.

6. Social Sciences and the Humanities

Table 3.8 presents the Grades 11 and 12 courses in Social Sciences and the Humanities offered in the 92 schools and the provincial enrolments in the courses. This group of courses is truly a mixed bag – ranging from Fashion and Nutrition to Philosophy and Social Sciences – it also includes Religion courses. Of the 21 courses that could be offered, only two courses were offered in over 70 percent of the schools: Individuals and Families in a Diverse Society (HHS4M) and Parenting (HPC3O). Provincial enrolments are small in all courses except for four in which over 15 percent of students were enrolled: Individuals and Families in a Diverse Society (HHS4M – 15.4%); Parenting (HPC3O – 16.7%); World Religions: Beliefs, Issues and Traditions (HRT3M – 17%); and Introduction to Anthropology, Psychology and Sociology (HSP3M – 22.2%). The requirement in separate schools is that all students take a religious education credit course in each of four years. One of these courses may be used to meet a compulsory credit requirement if it is based on a provincial course in the Social Sciences and Humanities curriculum policy document (e.g., World Religions – HRT3M or World Religions HRF3O). This not only reduces student flexibility in the courses they take but also restricts the number of other courses that can be offered in Roman Catholic schools in Grades 11 and 12.

Table 3.8: Grades 11 & 12 Courses in Social Sciences & the Humanities – Schools Offering (92 Schools) & Enrolment (%; 2003-04)

Social Sciences & the Humanities		Schools Offering Course		Provincial Enrolment[a] %
		n	%	
HFA4M	Food & Nutrition Sciences	29	31.5	6.7
HHG4M	Issues in Human Growth & Development	11	12.0	2.8
HHS4M	Individuals & Families in a Diverse Society	65	70.7	15.4
HIP3E	Managing Personal Resources	17	18.5	2.7
HIR3C	Managing Personal & Family Resources	17	18.5	4.0
HLS3O	Living Spaces & Shelter	16	17.4	1.8
HNB4O	The Fashion Industry	22	23.9	1.6
HNC3O	Fashion & Creative Expression	34	37.0	5.5
HPC3O	Parenting	74	80.4	16.7
HPD4E	Parenting & Human Development	12	13.0	1.5
HPW3C	Living & Working with Children	29	31.5	5.2
HRE3M	Religious Education[b]	3	13.0	9.2
HRE3O	Religious Education[b]	2	8.7	7.2
HRE4M	Religious Education[b]	16	69.6	33.4
HRE4O	Religious Education[b]	16	69.6	22.2
HRF3O	World Religions: Beliefs & Daily Life	21	22.8	8.5
HRT3M	World Religions: Beliefs, Issues & Religious Traditions	29	31.5	17.0
HSB4M	Challenge & Change in Society	41	44.6	10.3
HSP3M	Introduction to Anthropology, Psychology & Sociology	62	67.4	22.2
HZB3O	Philosophy: The Big Questions	7	7.6	2.2
HZT4U	Philosophy: Questions & Theories	30	32.6	11.8

U = University; C = College; E = Workplace; M = University/College courses

[a] Except for Religious Education in Roman Catholic Schools, percentages are based on the proportion of students in the grade taking the course based on a provincial enrolment in Grade 11 of 144,099 and in Grade 12 of 138,575.

[b] Percentages of schools in Religious Education are based on the number of schools offering the particular course in 23 Roman Catholic schools.

Percentages of students in Religious Education in the 'provincial enrolment' column are based on 47,761 students in Grade 11 and 42,900 students in Grade 12.

7. Health and Physical Education

Table 3.9: Grades 11 & 12 Courses in Health & Physical Education – Schools Offering (92 Schools) & Enrolment (%; 2003-04)

Health & Physical Education		Schools Offering Course		Provincial Enrolment[a] %
		n	%	
PAD3O	Outdoor Activities	6	6.5	1.5
PAD4O	Outdoor Activities	8	8.7	0.8
PAF3O	Personal & Fitness Activities	24	26.1	7.8
PAF4O	Personal & Fitness Activities	14	15.2	4.2
PAI3O	Individual & Small Group Activities	7	7.6	0.8
PAI4O	Individual & Small Group Activities	1	1.1	0.3
PAL3O	Large Group Activities	9	9.8	1.6
PAL4O	Large Group Activities	5	5.4	0.5
PAR3O	Rhythm & Movement	0	0.0	0.2
PAR4O	Rhythm & Movement	0	0.0	0.1
PLF4C	Recreation & Fitness Leadership	32	34.8	5.0
PPL3O	Healthy Active Living Education	82	89.1	28.5
PPL4O	Healthy Active Living Education	79	85.9	20.7
PPZ3O	Health for Life	23	25.0	3.9
PSE4U	Exercise Science	74	80.4	10.7

U = University; C = College; E = Workplace; M = University/College courses

[a] Percentages are based on the proportion of students in the grade taking the course based on a provincial enrolment in Grade 11 of 144,099 and in Grade 12 of 138,575.

It has been argued that our young people do no get enough physical activity during regular school hours. Only one Physical Education course is required for graduation and that course is typically taken in Grade 9. Over 70 percent of students in Grades 11 and 12 do not take a Physical Education course. Since all Physical Education courses, except PSE4U, are offered in an Open format, the course cannot be used for university admissions purposes – as a result, students view the course as an add-on. Nevertheless, most schools offer the core Grades 11 and 12 courses and even the smaller schools can offer at least one section at each grade level. The Exercise Science course (PSE4U) is offered in most schools and attracts students with a career interest in the area. Except for the Personal and Fitness Activities courses, most of the other Open courses are offered in few schools and have low enrolments. The Grade 12 College course (PLF4C) is offered in about one-third of the schools and has a relatively small provincial enrolment.

8. Native Studies

Of the eight Native Studies courses available, very few are offered, and where they are offered, enrolments are low. To fully understand the factors influencing the implementation of these course would require an intensive analysis of a small group of schools – more than could be undertaken in this study.

9. French

While the majority of schools offer Core French to University-bound students, a surprisingly large number do not (see Table 3.10). French is only offered in University course format and the provincial enrolments are quite small in all courses. Low enrolments make the offering and delivery of French courses a logistical problem.

Table 3.10: Grades 11 & 12 Courses in French – Schools Offering (92 Schools) & Enrolment (%; 2003-04)

French		Schools Offering Course		Provincial Enrolment[a] %
		n	%	
FEF3U	Extended French	16	17.4	1.1
FEF4U	Extended French	17	18.5	0.1
FIF3U	French Immersion	15	16.3	2.6
FIF4U	French Immersion	14	15.2	2.3
FSF3U	Core French	66	71.7	5.6
FSF4U	Core French	60	65.2	3.4

U = University courses

[a] Percentages are based on the proportion of students in the grade taking the course based on a provincial enrolment in Grade 11 of 144,099 and in Grade 12 of 138,575.

10. Guidance and Career Education

The Guidance and Career Education courses presented in Table 3.11 are used for a number of purposes: remediation, career counselling, as a link to Cooperative Education and for students to help other students. However, except for GPP3O the courses are available in few schools. Low numbers of potential course enrolees make what appear to be very useful courses difficult to deliver. It would be useful to review these courses from the point of view of strategies for effective implementation.

Table 3.11: Grades 11 & 12 Courses in Guidance & Career Education—Schools Offering (92 Schools) & Enrolment (%; 2003-04)

Guidance & Career Education		Schools Offering Course		Provincial Enrolment[a]
		n	%	%
GLE3O	Advanced Learning Strategies	25	27.2	2.0
GLE4O	Advanced Learning Strategies	14	15.2	1.0
GLS4O	Advanced Learning Strategies: Skills for Success After Secondary School	8	8.7	1.0
GPP3O	Leadership & Peer Support	42	45.7	12.2
GPP4O	Leadership & Peer Support	2	2.2	0.0
GWL3O	Designing Your Future	27	29.3	9.2

O = Open courses

[a] Percentages are based on the proportion of students in the grade taking the course based on a provincial enrolment in Grade 11 of 144,099 and in Grade 12 of 138,575.

11. Interdisciplinary Studies

a. Courses

Table 3.12 presents enrolment in the six available Interdisciplinary Studies courses. There appears to be two pairs of interchangeable courses IDC3O/IDP3O and IDC4O/IDP4O, and they have been combined in the table. The Ministry of Education defines this type of course as:

> *...the term interdisciplinary is used to describe an approach to learning and knowledge that integrates and benefits from the understanding and application of the approaches of different subjects and disciplines. The course expectations in this document reflect the following approaches: multidisciplinary approaches where the subjects or disciplines are connected through a theme, issue, problem, or research question; interdisciplinary approaches where a theme, issue, problem, or research question defines the approach taken and directs the attempt to seek a synthesis across subject/discipline boundaries; transdisciplinary approaches where real-life contexts direct learning that goes beyond particular subjects or discipline.*
>
> Ministry of Education: 2002, *The Ontario Curriculum, Grades 11 and 12*: Interdisciplinary Studies

Table 3.12: Grades 11 & 12 Courses in Interdisciplinary Studies – Schools Offering (92 Schools) & Provincial Enrolment (%; 2003-04)

Interdisciplinary Studies	Schools		Students
	n	%	%
IDC3O/IDP3O Interdisciplinary Studies	15	16.3	2.8
IDC4O/IDP4O Interdisciplinary Studies	15	16.3	1.2
IDC4U Interdisciplinary Studies	14	15.2	2.3
IDP4U Interdisciplinary Studies	4	4.3	0.2

One of the goals of this course type was to draw together different aspects of vocationally-oriented courses to facilitate the transition to work or apprenticeships in single or multiple course settings. In practice, however, the few schools that offer the courses do so mainly for gifted students or for students requiring some remediation. Few schools offer Interdisciplinary Studies.

12. Workplace Courses

Although we have discussed Workplace courses in each subject section, it is useful to examine Workplace offerings as a whole and to assess to what extent they have been implemented as anticipated.

With 50 to 60 percent of students in Grades 11 and 12 focusing on the goal of attending university, another 20 to 25 percent of students hoping to be able to attend college, and the remainder in a state of credit recovery after failures in Grades 9 and 10, very few students who plan on going directly to work after secondary school are left to take Workplace courses.

It is difficult to know exactly what was intended with the Workplace course offerings in Grades 11 and 12. If they were to be combined in sequences that provided preparation in particular vocational areas, then sequencing is clearly not happening. The goal of taking Workplace courses is described as follows:

> *Workplace preparation courses are designed to equip students with the knowledge and skills they need for direct entry into the workplace or for admission to apprenticeship programs and other training programs offered in the community. The range and content of the courses offered will allow students to prepare for a variety of jobs, training programs, and careers. Teaching and learning will emphasize workplace applications of*

> *the course content, but will also explore the theoretical material that underlies these practical applications.*
>
> Ministry of Education: 4.3.4 Workplace Preparation Courses in *Ontario Secondary Schools, Grades 9 to 12 & Program and Diploma Requirements*

Table 3.13 presents the Workplace courses in which students were enrolled in the 92 schools and the proportion of students enrolled in each course provincially.

Table 3.13: Grades 11 & 12 Workplace Courses – Schools Offering (92 Schools) & Enrolment (% Students; 2003-04)

Workplace Courses		Schools Offering Course		Provincial Enrolment[a] %
		n	%	
BAI3E	Introduction to Accounting	12	13.0	1.0
BAN4E	Accounting for a Small Business	2	2.2	0.2
BBB4E	Introduction to International Business	3	3.3	0.1
BMX3E	Introduction to Retail & Services Marketing	13	14.1	1.3
BOG4E	Organizational Studies: Managing a Small Business	14	15.2	1.5
BTX4E	Information Technology in Business	7	7.6	0.4
CGR4E	Environment & Resource Management	9	9.8	0.7
CGT3E	Geographic: The Geographer's Toolkit	4	4.3	0.3
CHH3E	Canadian History & Politics Since 1945	0	0.0	0.2
CHM4E	Adventures in World History	8	8.7	0.8
CLU3E	Understanding Canadian Law	25	27.2	2.8
ENG3E	English	56	60.9	5.4
ENG4E	English	57	62.0	4.1
HIP3E	Managing Personal Resources	17	18.5	2.7
HPD4E	Parenting & Human Development	12	13.0	1.5
ICE3E	Computer Engineering	9	9.8	0.9
ICE4E	Computer Engineering	7	7.6	0.2
MEL3E	Mathematics for Everyday Life	79	85.9	13.0
MEL4E	Mathematics for Everyday Life	78	84.8	6.3
NBE3E	English: Contemporary Aboriginal Voices	1	1.1	0.0
SNC3E	Science	50	54.3	5.2
SNC4E	Science	8	8.7	0.6
TCJ3E	Construction Technology	38	41.3	4.3
TCJ4E	Construction Technology	34	37.0	1.9
TDJ3E	Technological Design	19	20.7	1.3
TDJ4E	Technological Design	9	9.8	0.5
TFH3E	Hospitality & Tourism	26	28.3	3.7
TFH4E	Hospitality & Tourism	23	25.0	1.9
TGJ3E	Communication Technology	20	21.7	1.3
TGJ4E	Communication Technology	13	14.1	0.4
TMJ3E	Manufacturing Technology	34	37.0	3.2
TMJ4E	Manufacturing Technology	24	26.1	1.4
TPE3E	Hairstyling & Aesthetics	13	14.1	2.6
TPE4E	Hairstyling & Aesthetics	10	10.9	1.0
TTJ3E	Transportation Technology	46	50.0	6.2
TTJ4E	Transportation Technology	42	44.6	3.0

E = Workplace courses

[a] Percentages are based on the proportion of students in the grade taking the course based on a provincial enrolment in Grade 11 of 144,099 and in Grade 12 of 138,575.

A quick glance at the course listings in Table 3.13 indicates very low enrolments in almost every course, especially in the 'work' focused courses in Grade 12 Technology and Business.

Very few schools enrol students in any Workplace course in sufficient numbers to offer a section. Where they are offered, they must be blended with other courses. At the outset, the assumption was that students would take Applied courses or Essentials in Grade 10 and then Workplace courses in Grade 11 – some in preparation for college and some in preparation for going directly from school to work. Table 3.13 indicates that it would be very difficult for students in most schools to put together a program made up of mostly Workplace courses.

Although most of the schools offer Grades 11 and 12 Mathematics Workplace courses, slightly over half of them offer them in English and Science. (Note the substantial number of schools that do not offer Workplace English in Grades 11 and 12.) The Grade 12 Mathematics enrolment is less than half than that in Grade 11 even though the number of schools offering this course are about the same – 78 and 79 respectively. In most of the schools offering the Grade 12 Mathematics course, it is difficult to meet the minimum enrolment requirement for viability. The drop off in Grade 12 enrolment is consistent with the three-year requirement in Mathematics having been obtained by the end of Grade 11; i.e., students struggling in Mathematics will not take a fourth course.

The pattern in Science is even more pronounced with only eight schools offering the Grade 12 Workplace Science and .6 percent of students across the province enrolled – a dramatic drop from the numbers in the Grade 11 course, which fulfills the requirement of a third Science or Technology course. Very few schools offer the basic History and Geography Workplace courses, although Law is offered in one-quarter of the schools.

Clearly, it is assumed that business is not a route for workplace-bound students: only two Grade 12 courses available are offered and they are offered in very few schools; provincial enrolments are small.

Generally, most schools with Technology facilities try to offer Workplace programming in Grades 11 and 12. Students taking a subject area such as Construction Technology are typically combined across and within grades to meet minimum class size requirements. However, it can be seen that very few schools have the facilities to offer the full range of Workplace Technology courses: close to half of the schools offered Grades 11 and 12 Transportation Technology, over one-third of them offered Construction Technology and Grade 11 Manufacturing Technology and one-quarter, Grade 12 Manufacturing Technology. Between one-fifth and 9 percent of the schools offered another four Technological Studies courses at both grade levels with very few students enrolled: Computer Engineering, Technological Design, Communications Technology and Hairstyling and Aesthetics. Generally speaking, provincial enrolments were quite low.

To summarize, Workplace course enrolments are relatively low in Grades 11 and 12, and many schools do not make courses available in the core areas of English, Mathematics and Science. There is some potential for students to specialize in two of three of the Technology fields, but in relatively few schools. Courses such as Computer Engineering do not appear to be viable, or even appropriate for work-bound students. The decision to have Grade 9 and 10 Essentials courses flow into Workplace courses in Grades 11 and 12 would require the Workplace courses to be revised to be consistent with the needs and abilities of the students who are likely to take them. The potential for students to take work-oriented course sequences in Grades 11 and 12 is adversely affected by high failure rates in Grades 9 and 10 Applied and Essentials courses. It is difficult for students to put together a meaningful sequence of courses when they have to make up for lost credits. Access to Cooperative Education experiences would appear to be very important for these students.

C. Scheduling Issues/Access to Courses

One would expect that schools would be more flexible in responding to Grade 12 students' course choices in 2004 (i.e., with the second cohort of the Reorganized Program) than during the previous year when schools were juggling the timetabling of new and old program courses including OAC courses. This expectation was borne out to some extent in the survey responses of both sets of Grade 12 students: more Grade 12 students in the first cohort were unable to obtain the courses they requested (28.4% in 2003 vs. 24.4% in 2004). In response to the survey question that students state the reasons they were unable to take courses, first-choice courses were less likely to be available to more of the first cohort Grade 12 students in

2003 (19.2%) than to those in the second cohort in 2004 (16.6% - see Table 3.14). Course conflict was the most cited reason for both cohorts.

Table 3.14: Reasons Unable to Take First Course* Requested: 1st & 2nd Cohorts (% Grade 12)

Reasons	Grade 12	
	2003	2004
Course not available	19.2	16.6
Conflict with other course(s)	35.1	35.4
Not enough students to offer course	13.7	18.1
Already had eight courses	5.6	4.3
Course was full	16.1	15.2
Other	10.3	10.4

*The proportions of students who were unable take at least one course that they had requested were 28.4% in 2003 and 24.4% in 2004.

The most common examples of courses that students reported were not available to them were courses that we have noted were not available in many schools, e.g., Geomatics, Business, Geography, Photography, and Spanish.

Course conflicts were inevitable with so many single-section courses that could be offered in Grade 12. Nevertheless, access to Cooperative Education should not be restricted by course conflicts as it appeared to be in a substantial number of cases. The most common course conflicts occurred with Drama, History, Law, Photography, Visual Arts, and Writer's Craft.

D. Summary

There are low enrolments in many Grades 11 and 12 courses, especially in Workplace and College courses. There is also variability in what is offered from school to school that indicates different priorities are being implemented when identifying course offerings and making course delivery decisions.

School size is a factor in being able to offer a range of courses in the Reorganized Program – over half of secondary schools enrol under 750 students. A minimum number of students is required in a school in order to make a course viable. Although courses can be and are combined for delivery in some areas (e.g., The Arts and Technology areas), this approach is not appropriate in most other subjects.

Since provincial enrolments in College and Workplace courses are so low, there is little evidence of students taking meaningful course sequences in these areas. One of the issues that arises from the restrictions that must be placed on the number of courses offered in a school is the loss of subject content and skills to students' learning when courses are not offered. Currently content is distributed across an extensive range of Grades 11 and 12 courses with minimal overlap. If a course(s) is required or recommended as a prerequisite for a university, college or apprenticeship program and is not available, serious implications are presented for students. Other provinces deal with this issue by integrating relevant content into fewer course offerings. There is a clear need for a review of Grades 11 and 12 curriculum from the perspective of schools' capability to provide students with the necessary program of courses designed to meet their post-secondary goals.

Chapter IV Educational Issues

A. Introduction

In this chapter we re-examine two components of the Reorganized Program: the Community Involvement requirement and the Teacher-Adviser Program. Our focus is on implementation, administration and viability issues rather than the 'educational value' of the programs.

In the Phase 3 Report, we stated that there were few problems associated with students meeting the forty hours of Community Involvement, but that schools were struggling with the administrative aspects of the program. Here we review recent research on the issue and consider the second new cohort's experiences with the requirements.

The Teacher-Adviser Program (TAP) received critical reviews from both students and teachers in Phase 3. We noted the great variability in structure and administration of the program and wide differences in teacher and administrator commitment to the program. We suggested that a review of the program might be appropriate. In this chapter, we examine the influence of the Teacher Adviser Program on students' educational and career planning in light of other sources of guidance and influence.

B. Community Involvement Requirement

The Community Involvement requirement for students that was first implemented within the Reorganized Program in 1999 is defined in the Ministry of Education documents as follows:

> *As part of the diploma requirements, students must complete a minimum of 40 hours of community involvement activities. These activities may be completed at any time during their years in the secondary school program.*
>
> *The community involvement requirement is designed to encourage students to develop awareness and understanding of civic responsibility and of the role they can play in supporting and strengthening their communities. The requirement will benefit communities, but its primary purpose is to contribute to students' development….*

> *Students will maintain and provide a record of their community involvement activities....Documentation attesting to the completion of each activity must be submitted to the principal by the student....The principal will decide whether the student has met the requirements of both the ministry and the board for these activities.*
>
> Ministry of Education: 1999 *Ontario Secondary Schools Grades 9 to 12:* Program and Diploma Requirements

There has been some research undertaken on the impact of the required Community Involvement on students. In October 2003, Padanyi's surveyed four groups of 265 first-year students from the double cohort enrolled at Guelph University[1]. Two groups were from the former program, one who had done no community service while in high school (n = 100) and another who had done service on their own (n = 85). The other two groups (from the Reorganized Program) had participated in the secondary school community service program, one group had carried out the required number of hours (n = 49) and the other had done that plus put in extra hours on their own (n = 31). The research task was to determine whether required, unstructured community service was more beneficial to student participants than no community service experience at all. Padanyi concluded that unstructured community service that is required appears to have little impact on students other than increasing the interest in future volunteering of students who would not have volunteered without having been required to do so. Students (in the Reorganized Program) who spent the required hours on volunteer work as well as additional volunteer time on their own showed increased self-esteem, tolerance of diversity and work ethic toward school.

Norene Pupo, Director of York University's CRWS – Centre for Research on Work and Society – questions the efficacy of the secondary school mandatory requirement for forty hours of community service. She maintains that the education policy is flawed and based on the false notion that volunteer work is advantageous for students' future well being.

> *Sending students to seek out "opportunities" in their communities and the process of matching students to jobs reflects divisions of class, opportunity, privilege and access that are intrinsic to most educational and work experiences and replicated in a variety of ways, including the annual "bring-your-kids-to work days."*
>
> CRWS Newsletter, Issue Number 29, Spring, 2004

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[1] Padanyi, Paulette. (2003) Association for Research on Non-Profit Organizations and Voluntary Action (ARNOVA) presentation, Denver, CO (personal e-communication, Dec 8, 2004)

Pupo raises concerns about issues related to fair access to work, sufficient exposure to meaningful work experience, and the real costs of coercive volunteerism to students who need paid part-time work. Her position appears to be more ideological than based on a review of relevant literature. The research reported here does not allow us to make judgements on Dr. Pupo's argument, but only comment on whether the students can meet the Community Involvement requirements and the activities they engage in to do so.

Table 4.1 presents the number of hours of Community Involvement completed at the time of the Double Cohort survey administration for Grade 12 students from the first and second cohorts of the Reorganized Program.

Table 4.1: Community Involvement Hours Completed by Spring 2004 (% 1st & 2nd New Cohorts, Grade 12)

Hours completed	Grade 12	
	2003	2004
Zero	8.2	8.0
1-20	8.6	8.5
21-39	9.8	10.3
40 or more	73.3	73.2

By the spring of both 2003 and 2004, over 70 percent of Grade 12 students had completed the forty-hour requirement, including, as reported in Phase 3, over 80 percent of the students planning on attending university (see Phase 3 Report, p. 123). The proportions of both cohorts of students who had completed 20 hours or less were about the same (16.8% in 2003; 16.5% in 2004); about half of this group had not completed any hours at all.

C. Teacher-Adviser Program

The Teacher-Adviser Program (TAP) was implemented as part of the Reorganized Program and was designed for students from Grades 9 to 11. Schools were given the option to involve Grade 12 students or not. An excerpt from the Ministry guidelines describes TAP:

> *Teacher-advisers are responsible for helping students make informed choices at key transition points in their schooling. Each teacher-adviser will work with students for a minimum of one academic year and will have regularly scheduled meetings with them. Teachers assigned teacher-adviser duties are responsible for:*

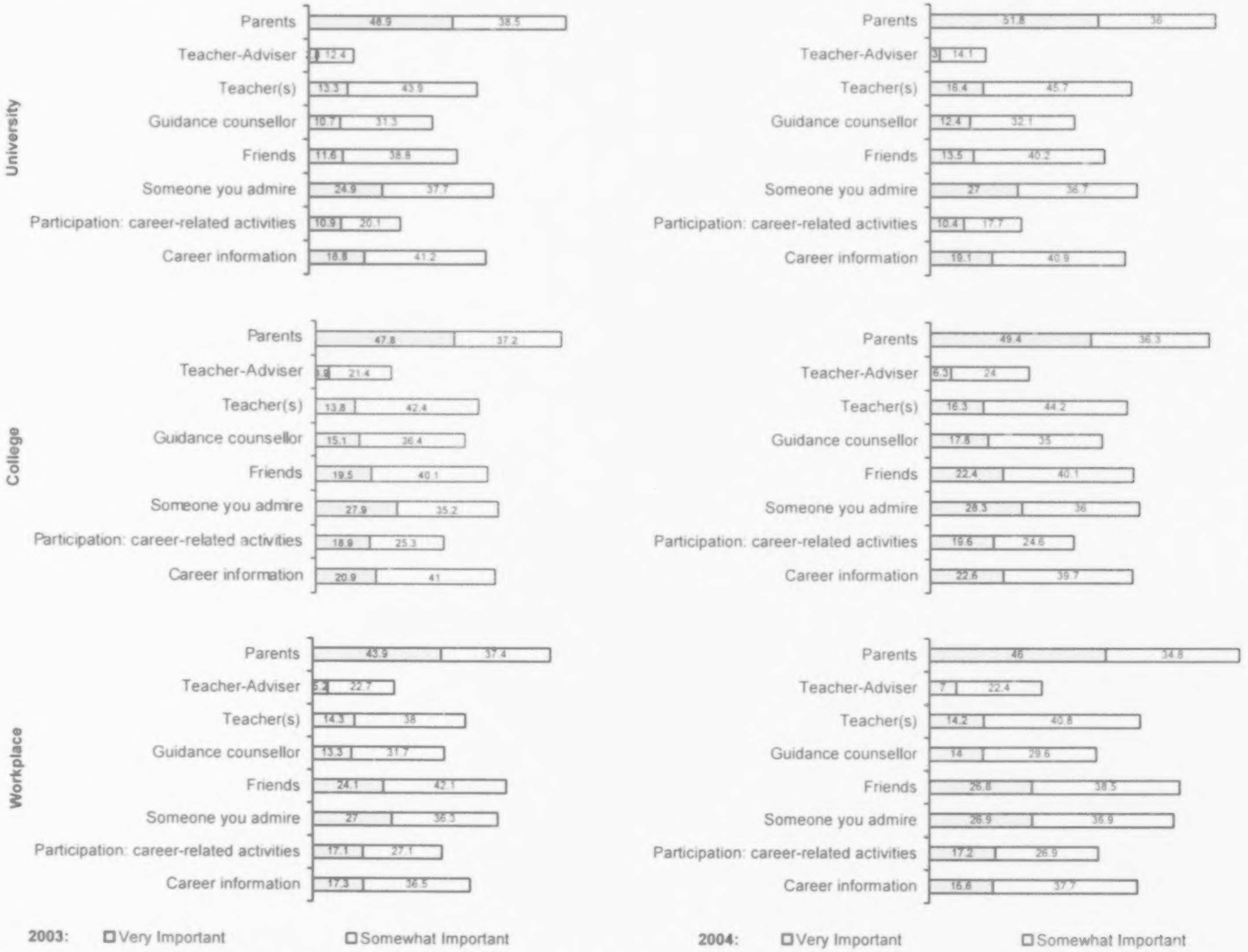
> - *helping students complete and review their annual education plan;*
> - *monitoring students' academic progress in all subject areas and the achievement of their goals, as outlined in their annual education plan;*
> - *communicating with parents and keeping them informed about students' progress.*
>
> *Teacher-advisers complement the work of guidance counselors and other teachers, and may also be required to assist other school staff in implementing programs for exceptional students. Teacher-advisers should be encouraged to enlist the help of experts in the community. Boards can choose the teacher-adviser program models that best meet the needs of their students and school community.*
>
> Ministry of Education: 1999 *Ontario Secondary Schools Grades 9 to 12:* Program and Diploma Requirements

Students were again asked on the questionnaire in Phase 4 to what extent the Teacher-Adviser Program (TAP) influenced their educational plans. Their responses are summarized in Figure 4.1 in the context of other influences such as parents and teachers. The students were categorized in terms of their prospective post-secondary-school destinations.

Although the results are similar for both cohorts, the findings were slightly more positive for the second cohort of Grade 12 students. A very small proportion of both cohorts considered that the TAP was 'very important' in influencing their planning for post-secondary education and careers; in 2004 the proportions ranged from 3 percent of university-planning students to 7 percent of the students planning to enter the workplace directly after secondary school. The proportions of Grade 12 students who thought that the Teacher-Adviser Program was at least somewhat important ranged from 17.1 percent of those aspiring to university to close to 30 percent of those planning to attend a college or go directly into the work world.

For all three destination groups – those planning on attending university or college or entering the workplace – parents continue to be the most important influences on educational and career plans. The importance of role models is again reaffirmed in the responses to the category 'someone you admire'. Teachers and guidance counsellors appear to have similar importance in their influences on students. The value of career-related activities and career information in the minds of many students emphasizes the importance of these initiatives.

Figure 4.1: Influences on Educational and Career Plans, by Post-Secondary Plans – Grade 12 (2003 & 2004)
(% 'Very Important' and 'Somewhat Important')



NOTE: university-bound students = 6,558/54%; college-bound students = 4,582/38%; work-bound students = 1,025/8%

D. Summary

Although there is some debate about the benefits of unstructured, mandatory volunteerism, and little research on the issue, students appear to have little difficulty in meeting the forty hours of the Community Involvement requirement. By spring of both 2003 and 2004, almost three-quarters of the Grade 12 students had completed the forty-hour community involvement requirement.

The was a slight increase in the proportions of Grade 12 students who reported that the Teacher-Adviser Program was at least somewhat important in planning for post-secondary programs and careers. However, the numbers were still relatively small for those aspiring to attend university (17%) but higher for those planning on college or planning on going directly into the work world (30%). Nevertheless, in light of other influences that students reported as being more important in making their educational and career plans (e.g., individual teachers, guidance counsellors, parents and other role models), program management problems and delivery variability from school to school, the viability of the Teacher-Adviser Program is questionable.

Chapter V School-to-Work Programming

A. Introduction

One important component of the Reorganized Program is the development of Workplace destination courses in Grades 11 and 12. Although these courses were designed to serve those students who graduate and go to the workplace or who leave school before graduating, course enrolments are so low as to bring into question their viability (see Chapter III). It appears that the most effective approaches to the school-to-work transition program employ Cooperative Education to provide students with a work experience that has course credit value. Enrolments in Cooperative Education and the Ontario Youth Apprenticeship Program are examined in this chapter followed by a summarization of other student work-related experiences.

B. Cooperative Education

Cooperative Education is defined by the Ministry of Education as follows:

> *A cooperative education course must be based on a related course (or courses) from an Ontario curriculum policy document or a ministry-approved locally developed course in which the student is enrolled or which he or she has successfully completed. The cooperative education course and the related course (or courses) together constitute a student's cooperative education program, designed to suit the student's strengths, interests, and needs and to enhance the student's preparation for the future.*
>
> *Cooperative education courses include a classroom component, comprising pre-placement and integration activities, and a placement component. Students earn cooperative education credits by integrating classroom theory with planned learning experiences in the community to achieve learning based on the curriculum expectations of the related course….*
>
> *The student may take the cooperative education course concurrently with the related course or after successful completion of that course….*
>
> *A cooperative education course, including both the classroom component and the placement component, must be scheduled for at least the same number of hours as required for any* ***one*** *of its related courses (for a minimum of 110 hours) and for at most twice the number of hours required for* ***each*** *related course.*
>
> excerpts from *Cooperative Education and Other Forms of Experiential Learning:* Policies and Procedures for Ontario Secondary Schools

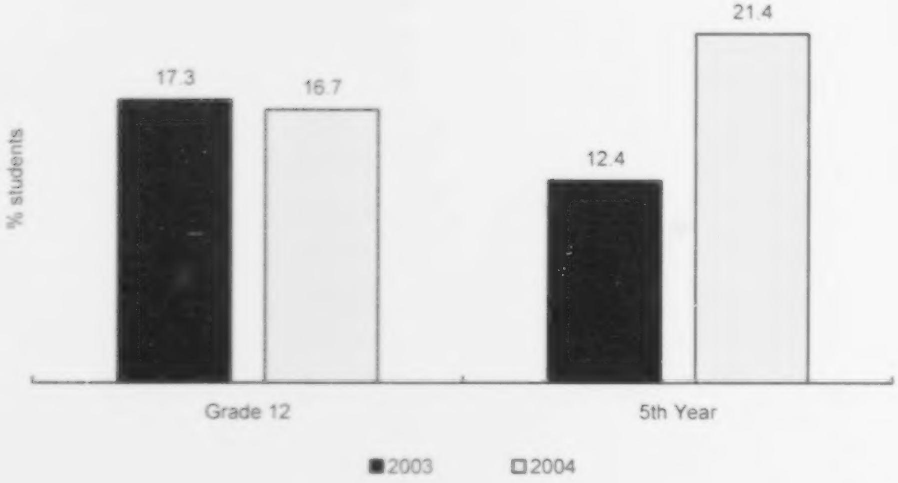
The above excerpts from the Ministry document on Cooperative Education clearly suggest the purpose and place of Cooperative Education in the Ontario secondary school system. In the Phase 2 report of the Double Cohort Study, we reported results from an analysis of 96 English and French language schools' course calendars or prospectuses and found that 85 percent of the schools mentioned Cooperative Education. It was listed in the table of contents of 44 percent of the course calendars and received major emphasis (as a major heading) in about 35 percent of them. Further, the calendar analysis revealed that there was little uniformity in how Cooperative Education and other work experience programs were depicted within course descriptions. This lack of uniformity was evident in which work experience programs were emphasized, how they were presented or described, and how students were to apply for these courses. We indicated that work experience programs were not perceived uniformly as an expected and valued component of all school programs.

Analysis of a random sample of 12 English language course calendars for the Phase 4 report suggests that the visibility of Cooperative Education has improved. Specifically, 11 of the course calendars mention Cooperative Education, 8 of the calendars list it in the table of contents, and 5 have Cooperative Education as a major heading. Although there have been improvements in visibility, the issues of lack of uniformity about how Cooperative Education is presented or described, and how students apply for these courses remain. There is also some variation in how Cooperative Education is viewed by guidance counsellors and school administrators. As noted in the Phase 3 report, some guidance counsellors and school administrators perceived Cooperative Education as inappropriate for 'academic' students.

The Phase 3 report showed that one-third fewer Grade 11 students were participating in Cooperative Education than was the case in the past. It is clear from previous sections of this report that due to earlier credit loss and the increased graduation demands of the new curriculum, students were having difficulty fitting Cooperative Education into their timetables.

Figure 5.1 presents the participation rates in Co-op for the first and second new cohorts in Grade 12 (2002-03 and 2003-04) and the first new cohort in 5th Year. Co-op participation is significantly higher for 5th Year students in the Reorganized Program than for the Grade 13 students of the past, which suggests that "returning" Grade 12 students are more likely to round out their timetables with Cooperative Education.

Figure 5.1: Taking Cooperative Education This Year
Grade 12 & 5th Year (% 'Yes'; 2003 & 2004)



It is apparent that participation in Co-op for Grade 12 students continues to be on the decline, although it has levelled off in contrast to the 22.6 percent participation rate for the Grade 12 group from the last of the old cohort (as stated in the Phase 2 report). It is also clear that 5th Year students have relatively high participation rates (21.4%) in Co-op; it could be that some students use this year to take/pick up the courses that would not fit into their timetables when they were in Grade 12 (see Chapter II for more discussion about the 5th Year student).

Table 5.1 summarizes the most common Cooperative Education placements for the 2003-04 Grade 12 surveyed students.

Table 5.1: Grade 12 Cooperative Education Placements

Schools	Doctor/Dentist/Lawyer Offices
Animal Care	Construction/Carpentry
Hospital/Nursing Homes	Automotive Repair
Day Care Centres	Electrical Repair
Hair Care	Police/Fire Department
Small Retail Stores	Machinest/Millright/Tool & Die
Motel/Hotel/Restaurant	Small Businesses
Computer Repair/Sales	

Almost all the placements could have career potential for participating students. Missing from the placements most obviously are opportunities in large businesses, manufacturing firms, and government-settings where there will likely be opportunities for positions for students in the future. It would be useful to determine why there are so few Cooperative Education placements available in these settings.

Table 5.2 presents Cooperative Education enrolments in Grade 12 and 5th Year, by gender.

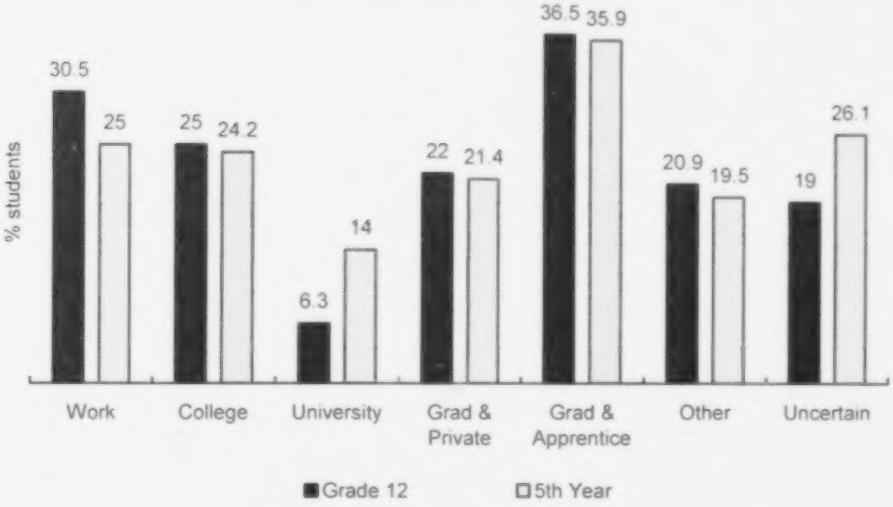
Table 5.2: Taking Cooperative Education Course This Year, by Gender (% 'Yes'; Grade 12 & 5th Year in 2004)

Gender	Grade 12	5th Year
Male	15.5	19.1
Female	17.7	24.7

These data reinforce the trend reported in Phase 3 that, in any given year, Co-op participation by females is higher than that of males. In fact, one in four of the females in 5th Year are participating in Cooperative Education.

Figure 5.2 presents Cooperative Education enrolments in Grade 12 and 5th Year by students' post-secondary plans.

Figure 5.2: Taking Cooperative Education This Year, by Post-Secondary Plans (% Grade 12 & 5th Year in 2004)



Proportionally fewer students who planned on attending university enrolled in Co-op compared to students who have other plans, whereas proportionally more of those who planned to enter apprenticeship programs took Co-op. Although, for the Grade 12 and 5th Year cohorts, college- and university-bound students account for approximately 65 percent of the Co-op participants, the rate of participation is highest for students planning on entering apprenticeship programs, followed by those intending to work after secondary school.

Figures 5.3 and 5.4 present the contrast between proportions of students in each destination category (e.g., non-graduate and work, graduate and work, college) and the proportion that each destination group makes up of the Grade 12 and 5th Year students, respectively, taking Cooperative Education. For example, when considering the Grade 12 students, 32.6 percent of them stated that their intentions were to attend college, and at the same time, 48.7 percent of these same students were participating in Cooperative Education.

Figure 5.3: Post-Secondary Plans & Involvement in Cooperative Education (% Grade 12 Students in 2004)

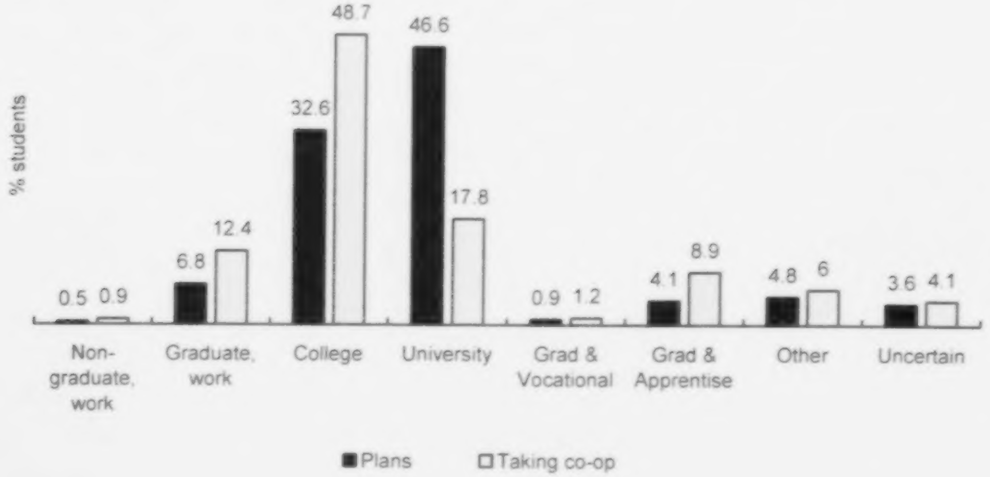
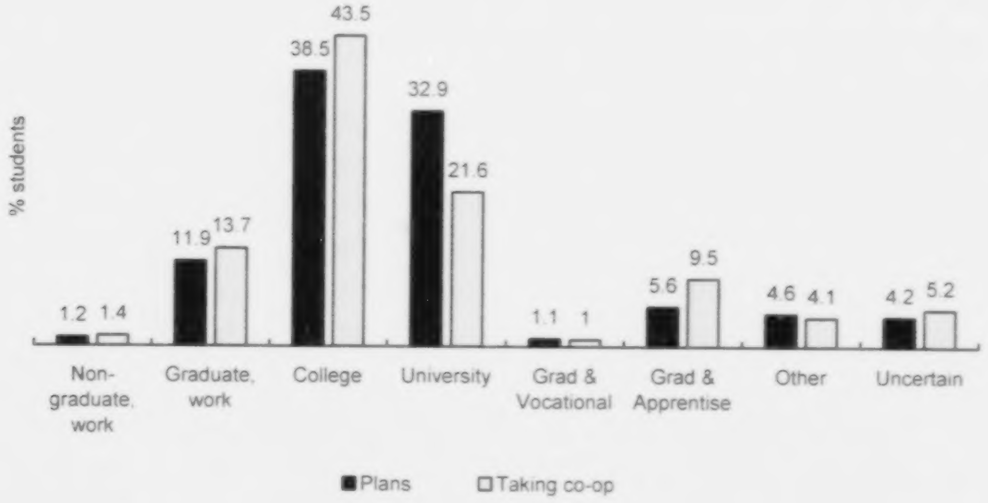


Figure 5.4: Post-Secondary Plans & Involvement in Cooperative Education (% 5th Year Students in 2004)



These two figures clearly reconfirm some important trends that were first raised in the Phase 3 report. First, 70 to 80 percent of the students in both groups indicated that their post-secondary destination is a college or a university (although the 5th Year students were more likely to expect to attend college than university while the Grade 12 students still favoured university). Second, of those students in each group participating in Co-op, approximately two thirds are accounted for by students who intended on a college or university post-secondary destination. Third, when comparing the percentages of post-secondary destination and participation in Co-op within a group, with the exception of university-bound students, a higher percentage of students participated in Co-op than is indicated by their post-secondary destination. For example, even though 4.1 percent of the students in Grade 12 intended on graduating and going to apprenticeship programs, they account for 8.9 percent of the cohort's Co-op enrolment. Fourth, Co-op participation rates of students intending on going to college are much higher than the percentage of students within the cohort selecting college as their post-secondary destination. Finally, the figures clearly illustrate that Co-op participation of university-bound students, as a percentage of all students within a cohort taking Co-op, is much lower than the percentage of students within a cohort indicating that their post-secondary destination was university.

For those students who indicated that they had taken or were currently taking Cooperative Education, the students were also asked the extent to which the Co-op placement was related to their career plans. Table 5.3 highlights this relationship within each cohort.

Table 5.3: Is Co-op Experience Related to Career Plans?
(% 'Yes'; Grade 12 & 5th Year in 2003-04)

Related to career plans	Grade 12	5th Year
Yes, closely related	53.6	43.7
Yes, partly related	23.9	27.3
No	13.2	18.2
Don't know yet	9.3	10.8

Within each cohort, approximately three-quarters of students taking Co-op see it as closely or partly related to their career plans. Surprisingly, a higher proportion of 5th Year students (close to one-fifth) see no relationship of the Co-op placement to their career plans, and 27 percent of the 5th Year students are taking a Co-op placement that may have little to do with their career plans. Thus, even though 5th Year students have higher participation rates in Co-op, their placements are less career-focussed than those of Grade 12 students.

Table 5.4: Is Co-op Experience Related to Career Plans? by Gender (% Grade 12 & 5th Year in 2004)

Related to career plans	Grade 12		5th Year	
	M	F	M	F
Yes, closely related	50.8	56.0	39.2	49.1
Yes, partly related	23.5	24.4	27.1	27.5
No	16.3	10.6	22.4	13.0
Don't know yet	9.3	9.1	11.2	10.4

In addition to Co-op participation by females being higher (Table 5.2), the relationship between Co-op experience and career plans is also higher. Specifically, females are more likely to state that their Co-op experience is closely related to their career plans. Also of note is that even though there is a higher participation rate of 5th Year students, the strategic value of the Co-op experience to their career plans is lower than for Grade 12 students regardless of gender. Overall, based on participation rates, and the relationship between the Co-op placement and career plans, females are much better at taking advantage of Cooperative Education opportunities.

When we examine Co-op participation as related to career plans in terms of the students' planned destinations after high school, some interesting findings are revealed.

Table 5.5: Is Co-op Experience Related to Career Plans? by Post-Secondary Plans (% Grade 12 & 5th Year in 2004)

Related to career plans	Grade 12			5th Year		
	University	College	Work	University	College	Work
Closely related	59.4	54.8	41.1	55.6	45.6	28.9
Partly related	25.2	25.3	24.6	24.6	29.1	25.8
Not related	10.7	12.9	19.3	11.9	19.5	24.7
Don't know yet	4.7	7.0	15.0	7.9	5.7	20.6

As Table 5.5 shows, university-bound students perceive their Co-op experiences to be more closely related or partly related to their career plans than students heading to other destinations (84% of Grade 12 students, and 80% of 5th Year students). Perhaps most surprising is that for those intending to go directly to work, Co-op is perceived as being related to their career plans for only 65 percent of Grade 12 students and for 55 percent of 5th Year students. Thus, it appears that a higher percentage of students heading to post-secondary destinations see a stronger link between their Co-op experiences and their career plans than the students who do not intend on pursuing post-secondary education. Conversely, a surprising 35-45 percent of students heading directly for the world of work are either unsure or are positive that their Co-op placement has nothing to do with their career plans.

For those students who indicated that they have taken or are currently taking Co-op, they were also asked about the reason(s) they had for taking a Co-op course. Table 5.6 highlights the reasons within each cohort.

Table 5.6: Reasons for Taking Co-op (% Grade 12 & 5th Year in 2004, 'Yes')

Reason	Grade 12	5th Year
To gain useful work skills	78.7	77.2
To explore possible career	75.3	65.0
To improve chances of admission to college or university	43.0	38.0
To apply classroom learning to practical work experience	37.2	33.1
To improve chances of getting part-time or summer job	39.3	33.8
To have a change from regular classroom	51.2	42.2
Other	11.9	7.6

There is little variation between the cohorts in terms of their reasons for taking Co-op. The primary reason, cited by 77-79 percent of the students, was to gain useful work skills. The second cited reason by approximately 65-75 percent of all students was to explore possible careers. The third most cited reason was to have a change from the regular classroom, and this response was even more popular than the strategic reasons such as improving chances for admission into a post-secondary institution or obtaining a part-time or summer job.

When we examined the reasons for participating in Co-op in terms of the students' plans after high school, there were some interesting findings. Overall, there is a general perception (approximately 77%) that Co-op experiences are helpful in gaining useful skills regardless of students' future expectations. Not surprisingly, students intending on entering apprenticeship programs indicated the highest importance of Co-op in gaining useful skills. Career exploration was cited as the reason for taking Co-op by a significantly larger percentage of university-bound students (70-76%) than those heading to other destinations, including the world of work. This latter finding requires further study because it appears that Co-op is better serving the career exploration needs of those students who are intending to pursue post-secondary education, in contrast to those students who are uncertain about the future or who are immediately going to the world of work.

Applying classroom learning to practical work experience was one of the least-cited reasons for taking Co-op by all students, regardless of their destination. Improving chances for part-time or summer employment was of least importance to university- and college-bound students. In summary, there are obvious differences for taking Cooperative Education related to the students' future plans.

Students who did not take Cooperative Education this year were asked to identify one main reason for not doing so. Table 5.7 presents the responses to this question for the Grade 12 students because the question was not asked to the 5th Year students.

Table 5.7: Reason for Not Taking Co-op This Year (% Grade 12 in 2004)

Reason	Grade 12
Not interested	31.7
Would prevent taking other required courses	32.9
No placement of interest available	6.2
Not possible to schedule in timetable	15.0
Could not arrange transportation	2.6
Already have taken Co-op	5.6
Other	6.0

Approximately 32 percent of the Grade 12 students not taking Co-op cited lack of interest as their reason. Perhaps more significant is that the remaining 68 percent of students not taking Co-op cited reasons that do not involve lack of interest. For example, when considering course selection, timetable issues, transportation, or availability, it becomes clear that almost 60 percent of Grade 12 students not taking Co-op cite these logistical constraints that, if addressed, may have made taking Co-op a real possibility for them.

C. Ontario Youth Apprenticeship Program (OYAP)

The Ontario Youth Apprenticeship Program (OYAP) is:

> *… a specialized program that enables students who are 16 years of age or older to meet diploma requirements while participating in an occupation that requires apprenticeship.*
>
> *An OYAP student is a student who is earning Cooperative Education credits for work experience in an apprenticeship occupation. The student may or may not be formally registered as an apprentice while attending secondary school.*

> *All students participating in OYAP must:*
> - *complete sixteen credits towards the OSSD prior to starting the program;*
> - *be enrolled as full-time students during the program;*
> - *complete all compulsory credits required for the OSSD.*
>
> excerpts from *Cooperative Education and Other Forms of Experiential Learning:* Policies and Procedures for Ontario Secondary Schools

Relatively small numbers of students participate in the Ontario Youth Apprenticeship Program, as evidenced in Table 5.8. OYAP students take Cooperative Education credits and are integrated into Technology courses. One difference from other Cooperative Education students is the nature of OYAP students' work placements which are in the apprenticeable trade area. All OYAP students have a learning plan that references the industry-recognized skills found in the appropriate Apprenticeship Training Standards and, therefore, is more likely to facilitate successful transitions to employment in the trades.

Table 5.8: Taking OYAP This Year (% 'Yes'; Grade 12 & 5th Year in 2003 and 2004)

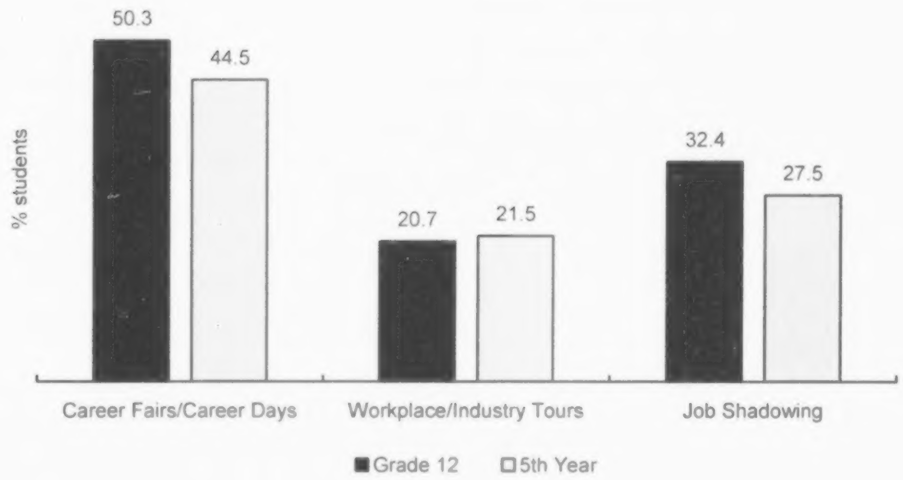
Year	Grade 12	5th Year
2003	1.6	0.8
2004	1.9	2.7

Participation in OYAP is approximately 2.5 times higher for males than for females, which may be attributed to the greater proportion of male-oriented trades. Although the numbers are small, there has been an increase in OYAP participation in the Reorganized Program of 5th Year students compared to Grade 13 students. As well, OYAP participants are drawn from all students with a wide range of career plans, although the proportions participating in OYAP are much greater among students who plan on entering apprenticeship programs after graduation. Only 30 percent of Grade 12 and 5th Year students enrolled in OYAP planned on entering apprenticeship programs after graduation.

D. Other Work-Related Experiences

The proportions of first new cohorts in 5th year and the second new cohort in Grade 12 who participated in fairs, industry tours, and job shadowing can be seen in Figure 5.5.

Figure 5.5: Participated in Career-Related Experiences
Grade 12 & 5th Year in 2004 (% 'Yes')



The participation rates of Grade 12 and 5th Year students virtually mirrors the rates presented for the same Grade levels in the Phase 3 report. Not surprisingly, there is a high participation rate in career fairs/career days which coincides with the emphasis on career development as students approach graduation.

E. Summary

This chapter presents a much abbreviated overview of Ontario secondary school-to-work programming. There are many initiatives that are not discussed such as board-wide focus programs in the Arts and Technology fields. Recently, there have been a number of Ministry of Education sponsored, board-developed, projects introduced that appear to have promise, e.g., workplace skill development programs in partnership with colleges, social service agencies and other organizations; outreach programming designed for high-risk students; and career-focused program packaging. These programs typically involve a Cooperative Education component.

Cooperative Education participation rates for Grade 12 students have declined over the past three years from 22.6 to 17.3 percent and to 16.7 percent, and notably fewer university-bound students have been taking Cooperative Education. Some of this decline appears to be balanced off through the increased participation rates of 5th Year returnees. Female students have higher participation rates and are more likely to take Cooperative Education for career-related reasons.

The proportions of students who participate in OYAP are very small (1.9% in Grade 12 and 2.7% in 5th Year). Only 30 percent of Grade 12 and 5th Year OYAP participants plan on entering apprenticeship programs after graduation. This program is not meeting its goal of attracting significant numbers of secondary school students into the trades.

Chapter VI Post-Secondary Education

A. Introduction

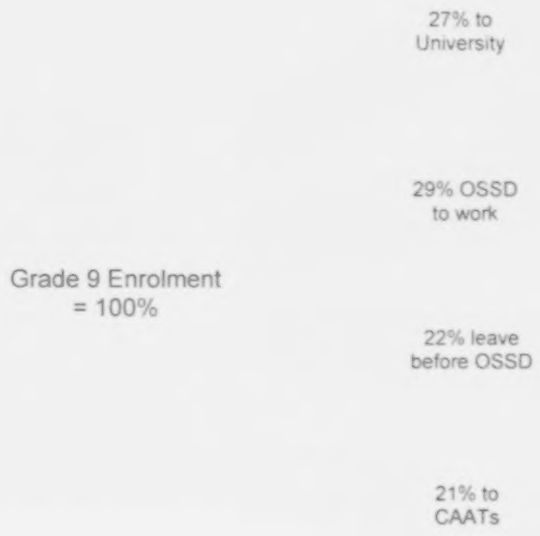
In this chapter, we attempt to answer two of the fundamental questions that prompted this study: how has the Reorganized Secondary School program affected the flow of students to Ontario universities and colleges?; and what are the long-term implications of that flow for university and college enrolments? As a first step we compare the post-secondary school destinations of the previous program's last two cohorts with that of the first cohort in the new program. Then we review the factors that will influence college and university first-year enrolments, and conclude by projecting enrolments for the next few years.

B. Changes in University and College First-Year Enrolments

The figures that follow with proportions of students leaving secondary school for post-secondary education destinations over time suggest a tidiness to the process of determining student destinations after secondary school that is not the case. There are students who graduate after four or five years but who do not apply to university or college until the next year when they were out of school. At a later date, many other former students (both graduates and early school leavers who will later meet graduation requirements) will apply to college (well over 50% of college applicants have been out of school for one year or longer) and university (10% of registrants from Ontario have been out of secondary school one year or longer). Students leaving and then returning to secondary school is an ongoing process. Also, comparing the previous program's three years of graduates (4, 5 and 6 years in secondary school) with the current program's four- and five-year graduates can be problematic.

Figure 6.1 depicts the direct transition of secondary school students to post-secondary destinations prior to the introduction of the Reorganized Program.

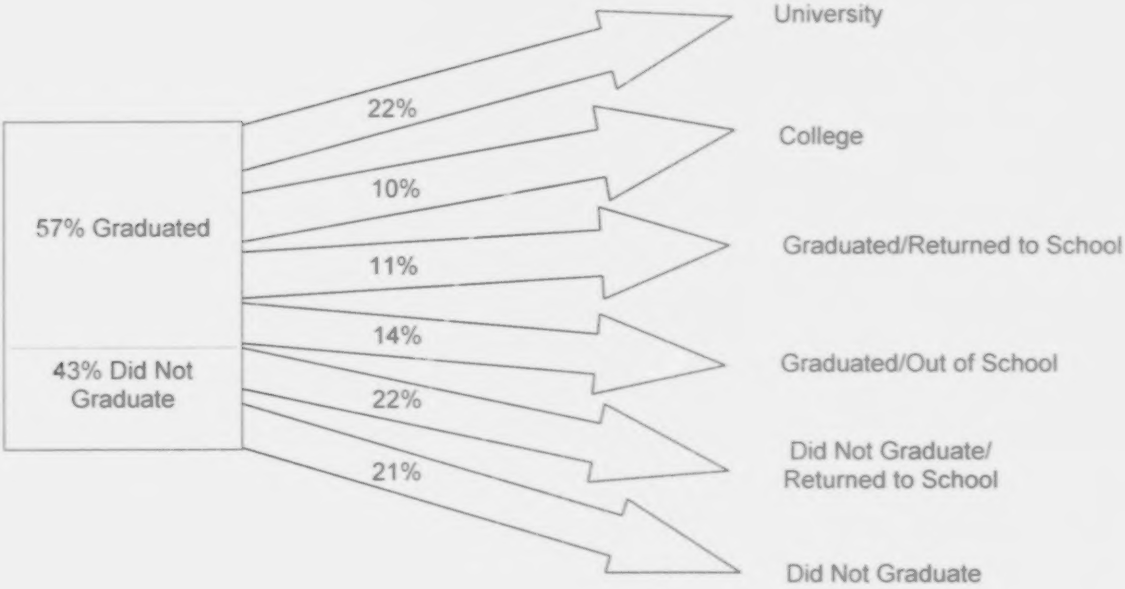
Figure 6.1: Year 2000 Ontario Student Flow from Grade 9 to Post-Secondary Destinations*


27% to University
29% OSSD to work
Grade 9 Enrolment = 100%
22% leave before OSSD
21% to CAATs

In 2000, approximately 27 percent of the base Grade 9 population, having taken four, five or six years in secondary school, went directly to university, and about 21 percent went directly to college. About 22 percent of that base population had not graduated after six years.

Figure 6.2 presents the proportion of students who went to college and university after the first four years in the secondary school's Reorganized Program. For this analysis college and university data were obtained from OCAS and OUAC, respectively, and graduation and return-to-school data came from the Ministry of Education data file.

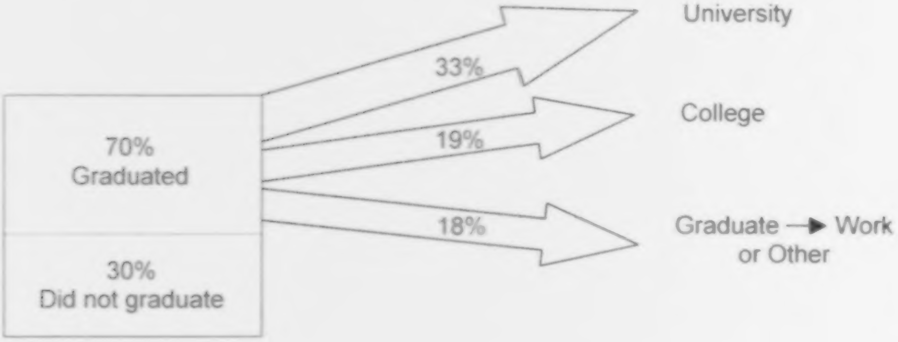
Figure 6.2: Destinations of First Cohort Students: Reorganized Program After 4 Years (1999-00 to Fall 2003)


57% Graduated
43% Did Not Graduate
22%
10%
11%
14%
22%
21%
University
College
Graduated/Returned to School
Graduated/Out of School
Did Not Graduate/ Returned to School
Did Not Graduate

Based on the original Grade 9 population, 57 percent of the first cohort in the Reorganized Program met the graduation requirements after four years. Thirty-three percent of the original Grade 9 enrolment returned for a fifth year, but one-third of them had met graduation requirements. Far more students than in the past (pre-double cohort years) went directly to university after four years in secondary school (Table 6.3, p.104), but the increase was less for colleges (Table 6.8, p.110).

Figure 6.3 presents a reasonably accurate representation of the students who went to college and university in 2003-04 after four and five years in the Reorganized Program.

Figure 6.3: **Destinations of First Cohort Students: Reorganized Program After 5 Years (1999-00 to Fall 2004)**



It is important to note that only 22 percent of the Grade 9 1999 cohort returned for a fifth year to complete graduation requirements (the other 11 percent had already met graduation requirements). Slightly over 60 percent of this group did graduate, moving the graduation rate after five years up to 70 percent from the four-year rate of 57 percent. Since the Ministry of Education was unable to provide accurate graduation rates for the years 1999 to 2002, it is difficult to compare graduation rates for the old program with those of the first cohort of the Reorganized Program. Based on estimates for 1998 to 2000 figures and our trace of the last cohort of the old pre-Reorganized Program, the graduation rate after five years for students in the old program was approximately 78 percent.

Approximately 30 percent of students from the first cohort of the Reorganized Program did not graduate from secondary school in five years or less. Many of those students will complete an OSSD or Graduation Equivalent Diploma (GED) by attending Adult Learning Centres or their equivalent and attend college or even university at a later date. However, it must also be noted that between 7 and 8 percent of direct-from-secondary-school applicants to college in both 2003 and 2004 took six years in secondary school. For most of those students, their link to secondary school was enrolment in only one or two courses.

In contrast to the outcomes of OS:IS, the Reorganized Program appears to have reduced the size of the college-bound pool of students and increased the size of the university-bound pool (in concert with an increase in university spaces), and substantially reduced the number of secondary school graduates.

C. Post-Secondary Age Cohort Projections

One of the first considerations in developing reliable projections for enrolments in Ontario universities and colleges is to develop an accurate picture of the age cohort from which the students would come who register in the first year of a post-secondary institution directly from secondary school. Of course, one must also take into account the more than half of first-year college attendees and the 10 percent of first-year university attendees from Ontario secondary schools who will have been out of school one year or longer, as well as those who come to Ontario institutions from outside the province (7%). The age group typically entering college or university after four years in secondary school would be eighteen years of age; that is, they would have reached their eighteenth birthday somewhere in the year of first-year attendance (about one-third will not have turned 18 until after they are enrolled and about two-thirds will have turned 18 by the time they register). For purposes of this analysis, we will assume that the number of students who were accelerated by one year for one reason or another is equivalent to the number of students who have been held back for illness or for some other reason.

In the first phase of this study we were unable to obtain age cohort data from Statistics Canada that were consistent with actual elementary and secondary school enrolments. Since that time, 2001 Census data have become available and, although the numbers are a little lower than actual school enrolments, they are at least arguably consistent from age group to age group (i.e., with no substantial increases or declines). Using Ontario 2001 census data, for 7 to 16 year-olds, we have projected the magnitude of the 18 year-old cohort from 2003 to 2012 (see Table 6.1). The net immigration numbers in the relevant age cohort are relatively small and have not been incorporated into the projections.

Table 6.1: Age 18 Cohort (2003-2013)

Year	Students	Year	Students
2003	157,690	2009	161,230
2004	157,875	2010	159,440
2005	155,650	2011	156,360
2006	153,230	2012	153,065
2007	156,575	2013	153,710
2008	162,160		

Source: Adapted from Statistics Canada 2001 Census

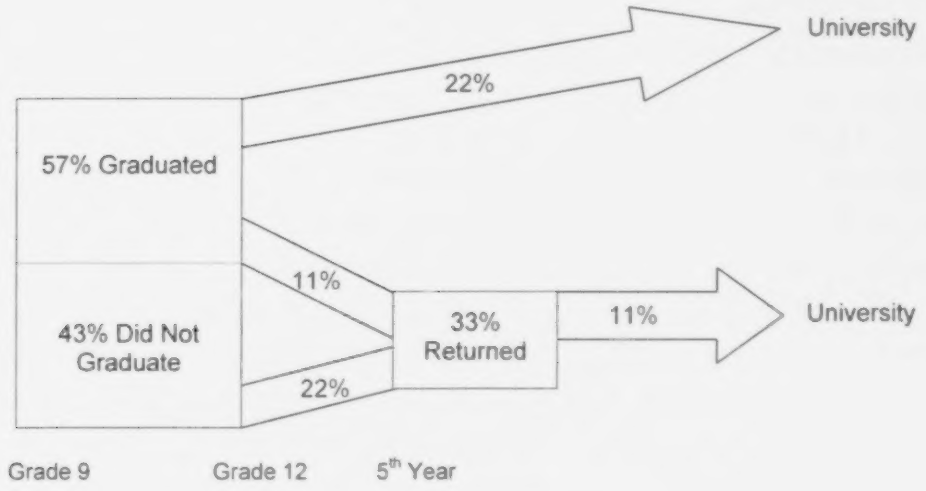
The number of youth in the 18 year-old-age cohort is projected as relatively stable from 2003 to 2007. The number increases over the next year, then drops slowly again until 2012 where the numbers will be similar to those in 2001.

D. University: First-Year Enrolments

1. Secondary School to University – Current Patterns

Figure 6.4 presents the proportions of students from the first cohort of the Reorganized Program who graduated after four or five years in secondary school and went directly to university.

Figure 6.4: Secondary School to University – 1st New Cohort


University
22%
57% Graduated
11%
43% Did Not Graduate
33% Returned
11%
University
22%
Grade 9
Grade 12
5th Year

The total figure of 33 percent who went directly to university represents a dramatic increase from the four-, five- and six-year totals of 27 to 28 percent who did so during the previous (OS:IS) period. Part of the increase is related to the growth in university spaces in the post-double-cohort period, but just as important is the pressure to apply created by the increase in the pool of students who have met university admission qualifications. This factor is explained in the analysis of achievement in University courses and the role of University/College courses (see Chapter II).

It could be argued that the increase in university enrolments is drawn from the pool of young people who would have attended college prior to the Reorganized Program.

2. Sources of First-Year University Enrolees

a. Direct from Secondary School

Table 6.2 presents the number of university applicants and registrants from 1999 to 2004. The sharp increase of about 10,000 applicants in the pre-double cohort year was followed by the massive increase precipitated by the double cohort year (2003-04). Interestingly, the ratio of applicants to registrants did not change through this period, except for 2002 where it increased slightly. The applicant figures from 2004 and 2005 reflect the increase in the proportion of the secondary school population applying to university, as noted above.

Table 6.2: First-Year University Applicants & Registrants Direct from Ontario Secondary Schools (1999-2004)

Years	Applicants	Registrants	Ratio
1999	58,639	41,813	71.3
2000	59,962	40,941	68.3
2001	61,223	42,000	68.6
2002	71,188	50,141	70.4
2003	103,593	70,604	68.2
2004	73,771	50,164*	68.2
2005	73,956	N/A	N/A

Source: OUAC data files

* Registrants for 2004 are estimated based on previous year's application/ registration ratios since the data were unavailable at the time of this report.

Table 6.3 presents the proportion of first-year university registrants who came directly from secondary school in terms of the number of years they spent in secondary school. The decline in students having spent six years is accompanied by a decline in the number of courses they took in the sixth year, that is, from a near-full program to one or two courses. In the past, the vast majority of registrants spent five years in secondary school. The 2004 pattern shows almost a complete reversal with the majority of registrants having spent four years in secondary school. There should be a slight increase in the proportion of four-year graduates registering in university in the next few years with a corresponding decline in the proportions of five- and six-year graduates.

Table 6.3: University Registrants* Direct from Ontario Secondary Schools Who Took Four, Five & Six Years to Complete Secondary School (1996-2004; %)

Year	Years in Secondary School:		
	Four	Five	Six
1996	8.4	78.3	13.2
1997	8.3	80.0	11.7
1998	7.7	81.7	10.5
1999	7.8	83.1	9.0
2000	8.0	84.0	7.9
2001	8.7	83.4	7.9
2002	16.1	77.9	6.1
2003	47.0	49.8	3.2
2004*	69.1	25.9	5.0

* Refers to 2004-05 applicants since registration data were unavailable at the time of this report.

b. Out of School/Out of Province

Approximately 17 percent of first-year registrants in Ontario either came from out of province or who delayed entry having been out of Ontario secondary schools one year or longer (Table 6.4). Their registration/application ratio is much less than for students directly from Ontario secondary schools (about 34% for out-of-province applicants and 42% for Ontario out-of-school applicants). There was a sharp increase in the number of not-directly-from Ontario secondary school applicants for the 2004-05 school year.

Table 6.4: First-Year University Applicants & Registrants Not Direct From Ontario Secondary Schools

Year	Applicants	Registrants
2000	26,027	9,982
2001	30,084	11,552*
2002	31,955	12,271*
2003	32,901	12,634*
2004	41,083	n/a

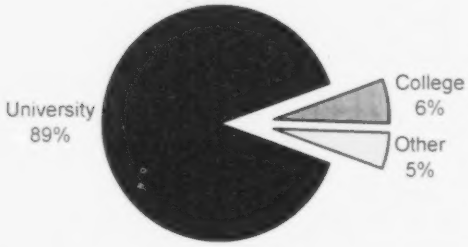
* Estimated at 38.4% of applicants based on previous years' patterns.

3. Who Goes to University?

How stable are students' aspirations to attend university as they progress through secondary school? Figure 6.5 presents the proportion of the 2003-04 Grade 12 enrolment planning on university in terms of their post-secondary plans when in Grade 10. For example, 89 percent of those planning on university in Grade 12 had similar plans when in Grade 10. However, 6 percent of the Grade 12 university-planning group had planned on college when in Grade 10. It is relatively easy to provide university-destination programs for this group of students because their aspirations remain relatively consistent over time.

It is informative to look at Figure 6.7 (p.113) which presents a similar analysis for those with college aspirations – one-third of the Grade 12 college aspirants planned on university when in Grade 10. For each year in secondary school, there is a decline in the proportion of students aspiring to university.

Figure 6.5: Post-Secondary Destination Plans of Grade 12 University-Planning Students When They Were in Grade 10 (%)



Planning to attend University when in Grade 12 = 48.8% of Grade 12 enrolment

Source: Double Cohort Surveys (2002 & 2004)

There is no question that the enrolment of university-bound students in University/College courses adversely affects the achievement of college-bound students in the courses. It is useful to know what proportion of university applicants have University/College courses on their transcripts (see Table 6.5).

Table 6.5: Ratio of University to University/College Courses: University Applicants' Transcripts (%; 2003-04)

Grade 12 Course Ratio	% University Applicants
6 University (U) courses	27.7
5 University (U) courses & 1 University/College (M) course	36.9
4 University (U) courses & 2 University/College (M) courses	24.1
3 University (U) courses & 3 University/College (M) courses	8.9
1 to 2 University (U) courses & 4 to 5 University/College (M) courses	2.4

* Source OUAC data file.

Over 60 percent of the applicants to Ontario universities for the 2004-05 school year took at least five University courses. This is not surprising in that Mathematics/Science students have little room within their timetables for University/College courses. Nevertheless, 11.3 percent of applicants listed three or more University/College courses on their transcripts. The distribution of University- and University/College-preparation courses on the transcripts of university applicants is summarized in Table 6.5.

Since students taking University/College courses in Grades 11 and 12 may have different post-secondary educational aspirations (either to go to college or to university), those students in those courses who are eligible to attend university usually obtain higher marks. This mix of students in University/College courses has the effect of increasing opportunities for university admission for some and decreasing the opportunities for college admission for others.

4. Projecting First-Year University Enrolments

Having established a baseline, i.e., the number of 18 year olds in Ontario 2003 to 2013 (see Table 6.1, p.102), and given the assumptions listed below, we can estimate with some accuracy first-year enrolments directly from Ontario secondary schools in Ontario universities for the next few years. It must be remembered that about 83 percent of all first-year (first-time) registrants come directly from Ontario secondary schools. As previously noted, the remaining 17 percent will come from Ontario having been out of school for one year or more or from out of province.

Assumptions on which our projections are based are as follows:

a. The vast majority of university programs will continue to be over subscribed. There is no reason to doubt this as student interest continues to be high and the pool of eligible students will remain stable.
b. Admission to university programs will continue to be based on variable marks requirements: that is, marks required to gain admission will rise or fall depending on numbers of applicants, acceptance/ registrant ratios, yield rates (i.e., acceptances/ confirmations ratio) and spaces available in the program.
c. The organization and delivery of university-bound programming in secondary schools will remain the same. Currently, students planning to go to university take a mix of University and University/College courses in Grades 11 and 12. Generally speaking,

students have had more success in University-preparation courses than they did in OAC courses. In addition, success rates for university-bound students are notably high in U/C courses. The result is that the pool of students eligible for university has increased. The 33 percent proportion of the original Grade 9 baseline enrolment attending university in 2004-05 could be the norm for future years.

d. The ratio of students going straight to university after four or five years in secondary school will continue to be the same. However, it must be noted that the students who have met graduation requirements who remain for a fifth year to raise marks or for some of the other reasons noted in Chapter II (see Section C6, p.50) will likely decline as four years to university becomes more clearly the norm. This evolution should not change the overall numbers of university applicants but will modify the four-year to five-year ratio.

e. The surge of applicants to out-of-province universities related to the double cohort will ebb and return to slightly higher than pre-double cohort figures.

Since the potential student base will vary little over the next few years, university enrolment directly from secondary school could remain at current figures. Enrolments would increase if spaces were made available in universities; the proportion of students interested in attending university will continue to be greater than available opportunities.

E. College: First-Year Enrolments

1. Introduction

For this analysis, we restrict our focus to projecting enrolments of students who go to college directly from secondary school. In 2003, this group represents about 46 percent of the first-year enrolment in the colleges. It is not within the purview of this study to project the first-year college enrolment of students who have been out of school at least one year, even though this is a very important issue since those students will represent the greater proportion of the entering first-year population. Certainly the pool of potential college applicants will be affected by the Reorganized Secondary School Program. There will be more secondary school non-graduates in the next three or four years than was the case in the past; but, to what extent this number will meet college admission requirements and influence the pool from which out-of-school applicants are drawn is difficult to determine. It may be that some of the secondary school dropouts will be so far behind in credit accumulation that their likelihood of meeting college admission requirements is reduced.

a. Secondary School to College – Current Patterns

As we noted in Figure 6.1, the direct-from-secondary-school-to-college percentage of the base Grade 9 enrolment prior to the Reorganized Program was approximately 21 percent. Again, this was a loosely defined group of students having spent four, five and more than five years in secondary school, and who had applied from secondary school even though they might have been taking a single course. Transition information for the first cohort in the new program includes only four- and five-year graduates (see Figure 6.6). There would be a slight increase in the proportion of students going directly from secondary school to college if we added those taking a course or two in a sixth year.

Nevertheless, it is quite clear that the direct-from-secondary-school-to-college group is not growing as a result of the Reorganized Program. Credit accumulation data for the first four cohorts in the Reorganized Program indicate that a slight improvement over the next few years can be anticipated.

Figure 6.6: Secondary School to College – 1st New Cohort

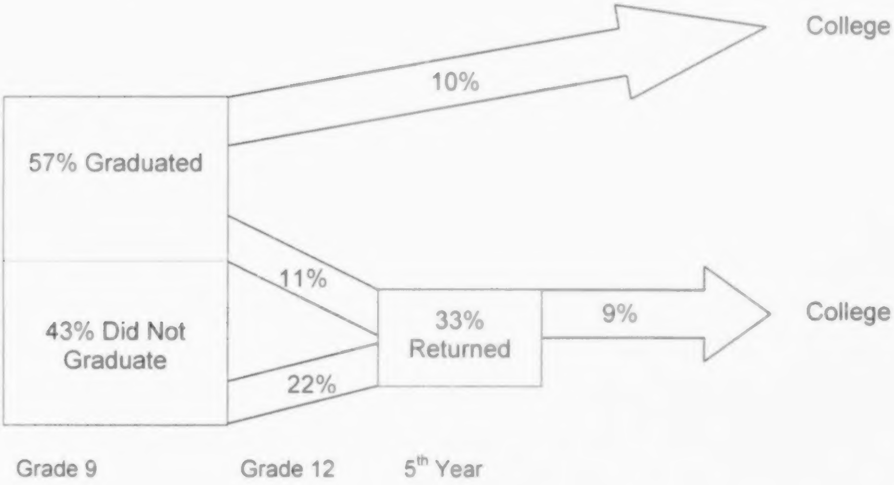


Table 6.6 illustrates the decline in college applicants directly from secondary school after the pre-double cohort and double cohort years. However, the decline in applicants was also apparent in early 2000s. In both 2003 and 2004, a decline in the registration/ application ratio is evident and of considerable concern to college administrators. Of course, some of this decline is associated with the increase in university enrolments.

Table 6.6: Ratio of College Registrants to Applicants Direct From Ontario Secondary Schools (1998-2004)

Years	Registrants	Applicants	Ratio
1998	34,565	55,514	62.4
1999	33,818	52,760	64.1
2000	32,825	51,889	63.3
2001	32,805	51,813	63.3
2002	38,912	60,481	64.3
2003	39,198	65,546	60.9
2004	33,743	57,139	59.1

Source: OCAS data tables; OCAS data files.

The vast majority of students enrolling in college do so in a Diploma Program (Table 6.7). It is not expected that increasing numbers of students will enrol in Applied Degree programs, and one reason is that these programs more clearly address a defined goal that only some students have.

Table 6.7: College Registrants Direct From Secondary School, by Type of Program (2004)

Program	n	%
Certificate	4,781	15.7
Diploma	24,704	80.8
AppliedDegree	1,059	3.5
Total	30,544	100

Source: OCAS data files.

b. Sources of College Students

Table 6.8 presents first-year college enrolments of students direct from secondary school with respect to the number of years the students spent in secondary school. In the past, about one-fifth of this group took four years in secondary school, but as the double cohort year approached this number increased to almost one-third of the direct-from-secondary-school enrolment. Although the overall numbers of college applicants has slowly declined, the proportion of four-year-secondary-school-graduates-to-college has increased. The 2004 proportion of four- and five-year registrants should remain stable for the next few years.

Table 6.8: College Registrants Direct from Ontario Secondary Schools, by Years in Secondary School (%; 1998-2003)

Years	Years in Secondary School			
	Four	Five	Six	> Six
1998	20.5	52.8	14.6	12.1
1999	22.1	55.1	12.8	10.0
2000	23.0	56.2	12.1	8.7
2001	25.2	56.1	10.4	8.3
2002	32.3	52.1	8.7	6.8
2003	43.0	44.4	6.5	6.1
2004	45.8	38.7	8.5	7.1

Source: OCAS data files.

Although the number of applicants who delayed entry to college from out of school has steadily grown for the past six years (see Table 6.9), the number of registrants has remained about the same. It is difficult to know whether this group will grow or decline as a result of the low secondary school graduation rates anticipated for the next four years.

Table 6.9: Ratio of College Registrants to Applicants Not Direct From Ontario Secondary Schools (1998 to 2004 – Fall Terms)

Years	Registrants	Applicants	Ratio
1998	44,576	82,449	54.1
1999	44,570	77,893	57.2
2000	43,568	78,000	55.9
2001	45,950	80,457	57.1
2002	44,651	81,758	54.6
2003	45,678	83,236	54.9
2004	n/a	84,579	n/a

Source: OCAS tables

c. Applied Degree Programs

The first set of degree programs offered by the Ontario colleges was implemented in the fall of 2003, just in time for the double cohort graduates. Students applied to so many post-secondary programs, each one with a different priority for them, that it was difficult to establish a meaningful picture of the viability of the new degree programs.

There was little doubt that some of the more attractive diploma programs would be even more attractive as degree programs. The tremendous interest evidenced in the Animation Program at Sheridan and the Flight Program at Seneca illustrates the assured viability of these programs. On the other hand, in the first year some of the programs generated little interest on the part of prospective students. The second time around overall numbers are up and the Applied Degree Program appears to have found a real identity and a place in the colleges. By 2004-05, student enrolment in Applied Degree Programs made up 3.5 percent of the college enrolments.

2. Applicants to College and University

One indication of the uncertainty of students' post-secondary school educational plans is the number of students who applied to both Ontario colleges and universities, and those that registered in one or the other (Table 6.10).

Table 6.10: Applicants to Both Colleges & Universities & Registrants in an Ontario College or University (2003-04)

	Applicants to Both	Registrants	
		College	University
n	19,387	7,159	7,950
%	100	36.9	41.0

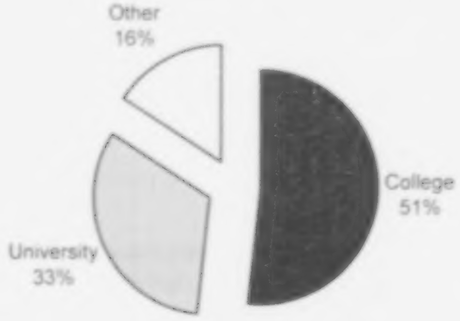
Source: OUAC data files.

During the spring of 2003 when student uncertainty about having access to a post-secondary institution was greatest, the proportion of applicants to both institution types was higher than in the pre-double cohort years. Unlike previous years, more of the applicants registered in a university than a college in the fall of 2003.

3. Who Goes to College?

Figure 6.7 presents the Grade 10 educational plans of the 31.7 percent of Grade 12 students who planned on attending college.

Figure 6.7: Post-Secondary Destination Plans of Grade 12 College-Planning Students When They Were in Grade 10 (%)



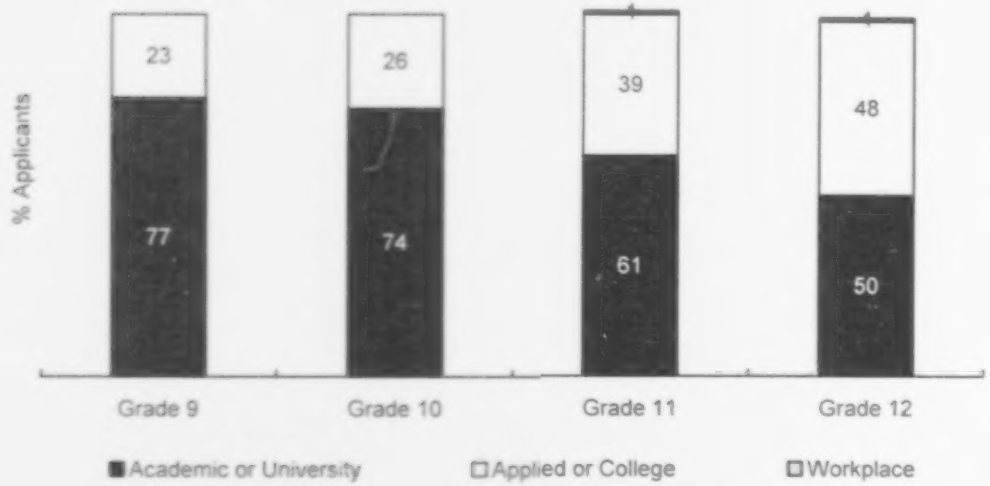
Planned to attend College when in Grade 12; 31.7% of Grade 12 enrolment

Source: Double Cohort Surveys (2001 & 2003)

As can be seen from Figure 6.7, the decision to attend college evolves slowly over time for many of the students who ultimately enrol in Ontario's college system. Nevertheless, slightly over one-half of those students in Grade 12 planning on college had similar plans when in Grade 10. On the other hand, one-third of the Grade 12 college aspirants had planned on university when they were in Grade 10. Also, substantial numbers of Grade 12 college aspirants had other plans or were uncertain when in Grade 10.

The slowly evolving pattern of interest in attending college can be seen in college applicants' transcripts. Figure 6.8 presents an analysis of 2003-04 college applicants' secondary school transcripts in terms of the required English courses they took from Grade 9 to 12. The percentage of college applicants who took Essentials courses in Grade 9 was negligible and, therefore, are not included.

Figure 6.8: College 2004 Applicants' Secondary School English Courses (Grades 9 to 12)

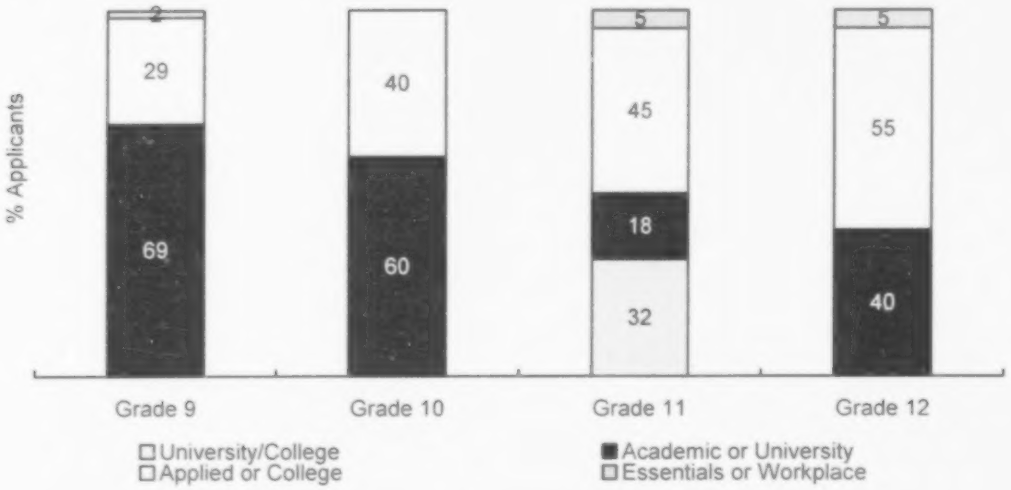


Source: OCAS data files

Seventy-seven percent of the college applicants had taken Grade 9 Academic English. By Grade 12, 50 percent of them had taken University English. Those taking Grade 12 College English were not eligible for university (48%), but those taking Grade 12 University English could still have been contemplating attending university; they may have been part of that group that applied to both types of post-secondary institutions.

Figure 6.9 presents similar information on college applicants and their secondary school Mathematics courses.

Figure 6.9: College 2004 Applicants' Secondary School Mathematics Courses (Grades 9 to 12)



Source: OCAS data files

Only three Mathematics courses are required to meet secondary school graduation requirements. Sixty-nine percent of college applicants were taking Academic Mathematics in Grade 9, and, by Grade 12, 40 percent of them were taking a University Mathematics course. In Grade 11, a University/College Mathematics course is offered; 32 percent of the college applicants completed that course successfully. Only 10.3 percent of college applicants who took Grade 12 Mathematics took the Grade 12 Mathematics for College Technology (MTC4C).

Are there two or three common sequences of Grades11 and 12 courses commonly taken by students planning on going to college? Since nearly half of the students who apply to college when in Grade 12 are taking a university-oriented program, and even more do so in Grade 11, the numbers of students applying to college who take college-preparation courses is not great. For example, 30 percent of college applicants had no Grade 11 College course on their transcripts and another 22 percent had only one. Also, 38 percent of college applicants had no Grade 12 College course on their transcripts and 19 percent had only one. Table 6.11 presents the percentages of college applicants with each of the Grade 11 and 12 College courses on their transcripts.

Table 6.11: Secondary School College Courses Taken By 2003 College Applicants (%)

College Courses (Grade 11)	% Applicants	College Courses (Grade 12)	% Applicants
BMI3C Introduction to Marketing	10	BTX4C Information Technology in Business	4
BDI3C Introduction to Entrepreneurial Studies	9	CGU4C World Geography: Urban Patterns & Interactions	1
HIR3C Managing Personal & Family Resources	3	CHY4C World History: The West & and World	2
HPW3C Living & Working with Children	6	EWC4C The Writer's Craft	2
CBI3C Biology	20	PLF4C Recreation & Fitness Leadership	5
TCJ3C Construction Technology	6	SCH4C Chemistry	12
TFT3C Hospitality	2	SPH4C Physics	7
TMJ3C Manufacturing Engineering Technology	4	TCJ4C Construction Technology	4
TPA3C Health Care	1	TFS4C Tourism	1
TTJ3C Transportation Technology	7	TMJ4C Manufacturing Engineering Technology	2
		TPO4C Child Development & Gerontology	.5
		TPT4C Medical Technologies	.2
		TTJ4C Transportation Technology	4

Source: OCAS data files.

As can be seen from Table 6.11, only one College course offered in Grade 11 was taken by substantial numbers of college-bound students – Biology and one in Grade 12 – Chemistry. The two business courses in Grade 11 had significant enrolments (10% and 9%), but there were surprisingly small enrolments in the College Technology courses considering the fact that they represent a natural sequence to college technology programs. On the other hand, there were substantial numbers of college applicants who had taken some of the University/College courses (see Table 6.12).

Table 6.12: Secondary School University/College Courses Taken By 2003 College Applicants (%)

U/C Courses (Grade 11)	% Applicants	U/C Courses (Grade 12)	% Applicants
AVI3M Visual Arts	12	AVI4M Visual Arts	11
AMX3M Music	5	AMX4M Music	5
CGF3M Physical Geography: Patterns, Processes, & Interactions	8	CGR4M The Environment & Resource Management	3
CHW3M World History to the Sixteenth Century	16	HFA4M Food & Nutrition Sciences	8
CIE3M The Individual & the Economy	3	HHG4M Issues in Human Growth & Development	3
CLU3M Understanding Canadian Law	28	HHS4M Individuals & Families in a Diverse Society	23
HRE3M Religious Education: Faith & Culture	4	HRE4M Religious Education: Church & Culture	7
HRT3M World Religions: Beliefs, Issues, & Religious Traditions	21	HSB4M Challenge & Change in Society	14
HSP3M Introduction to Anthropology, Psychology, & Sociology	22	ICE4M Computer Engineering	4
ICE3M Computer Engineering	7	ICS4M Computer & Information Science	7
ICS3M Computer & Information Science	17	SNC4M Science	1
SNC3M Science	4	TDJ4M Technological Design	6
TDJ3M Technological Design	10	TGJ4M Communications Technology	13
TGJ3M Communications Technology	20		

Source: OCAS data files.

For the most part, these University/College courses were not consistent with preparation for specific college programs – Grade 11 Understanding Canadian Law (CLU3M), World Religions: Beliefs, Issues and Religious Traditions (HRT3M), Parenting (HPC3O), Introduction to Anthropology, Psychology and Sociology (HSP3M), Challenge and Change in Society (HSB4M). However, students who took Computer and Information Science (ICS3M), Communications Technology and Technological Design (TGJ3M and TDJ4M) did appear to have college in mind. Overall, very few students took sequences of Business or Technology courses that could be defined as suitable for college preparation.

4. Projecting First-Year College Enrolments

It appears that the expected growth in college enrolments over the next few years is not likely to take place. Part of the explanation for this projection lies in the structure of the Reorganized Program. The University/College (U/C) courses offered in Grades 11 and 12 are generally less academically demanding than their equivalent OAC courses in the previous program. Since these University/College courses are accepted for university admission, this has the effect of increasing the proportion of students who meet university admission requirements. Since the space expansion at universities to meet the needs of the double cohort has made it possible to increase the number of student spaces post-double cohort, more students are able to attend university. On the other hand, students who may be planning on college are less likely to be successful in the U/C courses. This occurrence, combined with the high failure rates in core Grade 9 and 10 Applied courses means that the college pool of students is effectively reduced. The high failure rates in some Grade 9 courses has also contributed to lower graduation rates than in previous years.

A second issue relates to the viability of college-preparation courses in Grades 11 and 12. The great range of College courses in these grades and the relative lack of interest in most of them make it difficult to offer a full range of them in most secondary schools. Very few schools are able to offer meaningful college-preparation course sequences. Even the College Technology courses in Grades 11 and 12 are under-enrolled, and those who do enrol in them are more likely to go directly to work rather than to college.

A third critical issue derives from the sharp decline in secondary school graduation rates. In the past, many dropouts later completed graduation requirements and attended a college. Since, a greater proportion of current dropouts lag far behind in credit accumulation than was the case in the past, their path to meeting OSSD graduation requirements may be more difficult, and, consequently, fewer dropouts could be potential college applicants.

Over the years there has always been a substantial number of students who maintain a loose tie to secondary school or board-sponsored programs and return to take at least one course to complete their secondary school requirements. These students appear to apply to college directly from secondary school, but the fact is they are essentially out-of-school applicants. This group of students is likely to decline in size since being in secondary school two years after the norm of four years to graduation might not be comfortable.

In order to determine whether the pattern of 2003-04 applications to colleges and universities is changed in 2004-05, we not only have the applications to colleges and universities for those years but also student survey responses to the question of where they applied (see Table 6.13).

Table 6.13: Grade 12 Applicants to Colleges & Universities in 2003 & 2004 (%)

Applicants	Grade 12 2003	Grade 12 2004
Did not apply	42	47
Applied to:		
Ontario college only	18	15
Ontario university only	33	33
Both college & university	7	5

Source: Double Cohort Surveys (2003 & 2004)

Not only has there been a reduction in the proportion of students who actually applied to post-secondary institutions in 2004 but also this reduction includes only students who applied to college or both college and university.

In conclusion, college enrolments should remain at or slightly above 2004-05 figures for the next few years – in effect, paralleling secondary school graduation rates.

F. Summary

The proportion of students going directly to university from secondary school has increased under the Reorganized Program. This growth is related to not only a greater number of qualified students, but also an increase in the availability of university space since the double cohort. While over 60 percent of university applicants have five or six University courses in their transcripts, 11.3 percent have three or more University/College courses. University enrolments are likely to remain stable for the next few years, but there will continue to be secondary school graduates who do not gain entry into their university program of choice.

The proportion of students applying to college directly from Ontario secondary schools has declined slightly. There appears to be little likelihood of significant growth over the next few years. Nearly half of college applicants took a university-oriented program of courses when in Grades 11 and 12. There are low enrolments in Grades 11 and 12 College courses across the province and little evidence of students taking meaningful sequences of college-preparation courses. The introduction of College courses into the secondary school curriculum has not had the desired effect of facilitating the transition of students from secondary school to college.

Chapter VII. Particularités franco-ontariennes

A. Introduction

La mise en œuvre de la réforme du programme d'études au secondaire en est à sa cinquième année. La présente recherche s'intéresse plus précisément aux élèves de la deuxième cohorte du nouveau programme (12e année) ainsi qu'aux élèves de la première nouvelle cohorte ayant choisi de fréquenter l'école secondaire une cinquième année.

La recherche compte deux buts : comprendre l'effet de la double cohorte sur les projections des demandes d'admission aux collèges et aux universités de l'Ontario (à compter de l'année 2003-2004) et déterminer les effets de la mise en œuvre de la réforme du programme d'études sur le rendement des élèves du secondaire.

1. Objectifs

La phase quatre de la recherche permet de dégager avec un peu plus de précision les éléments suivants :

- le rendement scolaire de la 11e année (trois cohortes du nouveau programme) et de la 12e année (deux cohortes du nouveau programme) et leur progrès vers l'obtention du DESO ;
- une comparaison entre le rendement des élèves francophones et le rendement des élèves anglophones ;
- le taux d'obtention du DESO après quatre ans et cinq ans d'études au secondaire ;
- les raisons invoquées par les élèves de la première nouvelle cohorte pour terminer une cinquième année d'études au secondaire ;
- le choix du cheminement postsecondaire.

2. Échantillon

L'échantillon compte, pour la quatrième phase du rapport, 992 élèves francophones de 12e année et 196 élèves qui terminent une cinquième année d'études secondaires. Les élèves de 12e année font partie de la deuxième nouvelle cohorte alors que les élèves de la cinquième année d'études au secondaire font partie de la première nouvelle cohorte du nouveau programme. L'échantillon ne compte aucun élève d'immersion ou de programmes de ce type.

Les 21 écoles qui ont participé à cette phase de la recherche sont des écoles de langue française de plusieurs milieux : 13 écoles catholiques et huit écoles publiques de grande taille et de petite taille en milieu urbain et rural ainsi qu'en banlieue (voir le tableau 1.1 de la page 5). Aucune école du grand Toronto n'a participé à cette phase de la recherche.

B. Rendement scolaire dans les cours de base (français, English, mathématiques et sciences)

1. Introduction

Un des objectifs de la refonte des programmes est d'augmenter le taux de réussite des élèves du secondaire (obtention du DESO). Dans les trois premières phases de cette recherche, nous craignions que le contraire ne se produise, car le taux d'échec des élèves de 9^e et de 10^e années dans les cours de base était plutôt inquiétant. Nous présentons, dans la section qui suit, le rendement des élèves de 11^e et de 12^e année pour pouvoir mieux estimer le taux d'obtention du DESO par les élèves du secondaire inscrits aux cours du nouveau programme.

Les types de cours offerts dans le programme du palier secondaire de 11^e année et de 12^e année sont présentés ci-dessous :

U – cours préuniversitaire
M – cours préuniversitaire/précollégial
C – cours précollégial
E – cours préemploi
O – cours ouvert

Les cours de type ouvert, de type préemploi et de type préuniversitaire/précollégial, ne sont pas offerts à un assez grand nombre d'élèves franco-ontariens pour obtenir un échantillon valide pour cette phase du rapport. L'analyse porte uniquement sur les données des cours préuniversitaires et des cours précollégiaux.

Nous accordons une attention particulière, dans cette section du rapport, à la distribution des résultats scolaires en plaçant l'accent sur les taux de réussite et d'échec. Il ne faut pas oublier que ces données sont étroitement liées à l'obtention des 30 crédits nécessaires à l'obtention du DESO. De plus, une proportion importante de résultats moyens et élevés indique généralement que les divers paramètres du cours favorisent la présence d'apprentissage de qualité. Comme il est souligné à la page 33 de ce rapport, nous avons opté de combiner les pourcentages des résultats de moins de 50 % avec les résultats de 50 %. Une note de 50 % indique habituellement une note marginale d'échec transformée en réussite. Les expressions, taux d'échec et pourcentage d'échec, représentent la somme du pourcentage des résultats de moins de 50 % et du pourcentage de 50 %. Nous estimons qu'un taux d'échec élevé est un indicateur de la présence de facteurs qui nuisent à la qualité des apprentissages.

Nous présenterons dans un premier temps les distributions des résultats scolaires des cours de 11^e année pour les années scolaires 2001-2002, 2002-2003 et 2003-2004, et, dans un deuxième temps, les distributions des résultats des cours de 12^e année pour les années scolaires 2002-2003 et 2003-2004.

2. Rendement scolaire dans les cours de base (français, mathématiques et sciences) – 11^e année

a. Français

Le tableau 7.1 présente la distribution des résultats scolaires des cours de français pour les années scolaires 2001-2002, 2002-2003 et 2003-2004.

Tableau 7.1 : Distribution des notes finales – 11^e année – Français*

Cours	Année	<50	50	51-55	56-60	61-65	66-70	71-75	76-80	81-85	86-90	>90
FRA3C (précollégial)	2001-02	7,5	2,5	11,0	14,3	18,0	18,0	14,2	7,4	4,7	1,9	0,5
	2002-03	9,3	3,6	10,7	11,9	15,6	16,2	14,7	9,1	5,0	2,7	1,2
	2003-04	7,3	3,2	11,2	13,0	16,3	16,6	14,1	10,3	4,8	2,0	1,1
FRA3U (préuniversitaire)	2001-02	3,2	1,8	4,1	6,2	12,7	14,5	18,6	17,6	11,1	6,8	3,4
	2002-03	3,2	1,4	4,3	6,2	11,3	15,8	17,7	16,0	13,5	7,1	3,4
	2003-04	3,6	1,3	4,4	6,8	10,3	14,9	15,4	17,5	13,6	8,0	4,3

* Analyse basée sur les données du Groupe de gestion de l'information, ministère de l'Éducation de l'Ontario.

Les pourcentages d'échec au cours de français préuniversitaire (FRA3U) sont de 5 %, 4,6 % et 4,9 % alors que les pourcentages d'échec au cours précollégial (FRA3C) sont de 10 %, 12,9 %, 10,5 %. Le taux d'échec des élèves qui suivent le cours préuniversitaire est d'environ la moitié du taux d'échec des élèves du cours précollégial. La distribution des notes des deux types de cours n'a pas changé de façon significative depuis l'année scolaire 2001-2002. Les résultats scolaires sont plus élevés chez les élèves préuniversitaires que chez les élèves précollégiaux, surtout en ce qui concerne les résultats supérieurs à 70 %.

b. Mathématiques

L'examen du tableau 7.2 révèle que le pourcentage d'échec pour le cours « Mathématiques et finances personnelles » (MBF3C) est passé de 20,5 % en 2001-2002 à 16,4 % en 2003-2004.

Tableau 7.2 : Distribution des notes finales – 11e année – Mathématiques[a]

Cours[b]	Année	<50	50	51-55	56-60	61-65	66-70	71-75	76-80	81-85	86-90	>90
MBF3C	2001-02	15,2	5,3	13,5	13,7	13,1	13,0	10,3	7,1	5,2	2,6	0,9
	2002-03	14,3	5,1	11,2	12,6	13,2	12,3	10,8	8,8	6,3	3,5	1,8
	2003-04	11,5	4,9	11,1	11,6	14,0	13,8	10,3	9,9	7,5	3,5	2,0
MCR3U	2001-02	10,0	3,9	9,7	9,8	11,7	10,4	11,5	9,3	8,1	7,7	7,9
	2002-03	10,6	3,3	9,0	8,1	11,6	10,0	11,7	10,5	9,8	9,0	6,4
	2003-04	9,2	3,8	8,5	8,9	9,6	11,0	12,5	10,1	10,4	8,2	7,7

[a] Analyse basée sur les données du Groupe de gestion de l'information, ministère de l'Éducation de l'Ontario.

[b] MBF3C – Mathématiques et finances personnelles, MCR3U – Fonctions et relations.

Nous n'observons pas une diminution aussi marquée des taux d'échec chez les élèves qui suivent le cours préuniversitaire « Fonctions et relations » (MCR3U). Les taux d'échec pour ce cours demeurent stables pour les années scolaires 2001-2002, 2002-2003 et 2003-2004 (13,9 % 13,9 %, 12 % respectivement). Les distributions des résultats (de 51 % à 90 % et plus) est également semblable d'une année à l'autre. Nous notons aussi une distribution des notes à la hausse pour le cours MBF3C qui s'explique en partie du moins par le taux d'échec à la baisse. Les élèves, qui suivent le cours de mathématiques préuniversitaire, réussissent mieux que leurs camarades qui suivent le cours précollégial. Les élèves du cours préuniversitaire ont plus de facilité à obtenir un résultat final supérieur à 80 % que leurs camarades du cours précollégial.

c. Sciences

Le tableau 7.3 illustre les distributions des résultats scolaires des cours de sciences de la 11e année.

Tableau 7.3 : Distribution des notes finales – 11e année – Sciences[a]

Cours[b]	Année	<50	50	51-55	56-60	61-65	66-70	71-75	76-80	81-85	86-90	>90
SBI3C	2001-02	7,8	4,3	9,0	15,1	15,5	15,4	14,1	8,4	5,4	3,0	2,2
	2002-03	10,6	5	11,7	11,1	13,1	14,5	14,0	8,3	6,7	3,8	1,3
	2003-04	7,5	4,9	8,3	13,0	15,5	13,6	10,7	9,3	7,3	6,2	3,9
SBI3U	2001-02	5,0	1,9	6,5	9,1	11,6	13,9	14,5	12,4	10,6	7,9	6,7
	2002-03	5,5	2,1	5,5	8,4	10,2	14,5	13,7	12,8	11,9	9,3	6,2
	2003-04	4,0	1,4	5,5	8,7	10,4	11,8	12,8	14,2	13,3	10,4	7,5
SCH3U	2001-02	6,4	3,1	5,9	7,5	9,2	11,9	13,2	12,2	12,2	10,1	8,4
	2002-03	6,0	3,3	6,2	7,5	8,6	10,7	11,0	14,2	14,7	9,4	8,5
	2003-04	4,9	2,7	5,6	6,5	8,6	11,1	13,2	13,6	13,2	11,9	8,8
SPH3U	2001-02	5,9	2,6	5,5	6,1	8,8	11,7	13,8	14,7	11,5	12,8	6,8
	2002-03	5,5	2,3	6,4	6,3	10,4	11,6	14,0	14,1	13,5	9,3	6,5
	2003-04	5,7	2,2	6,9	6,5	10,5	12,2	15,0	13,5	11,9	9,7	5,8

[a] Analyse basée sur les données du Groupe de gestion de l'information, ministère de l'Éducation de l'Ontario.

[b] SBI3C – Biologie, cours précollégial, SBI3U – Biologie, cours préuniversitaire, SCH3U – Chimie, cours préuniversitaire, SPH3U – Physique, cours préuniversitaire.

Le cours de biologie (SBI3C) est le seul cours précollégial de 11e année du programme-cadre de sciences de 11e et 12e année. Le taux d'échec des élèves de ce cours passe de 12,1 % en 2001-2002 à 15,6 % en 2002-2003 et à 12,4 % en 2003-2004. Nous observons le même profil pour les résultats des élèves du cours préuniversitaire de biologie : 6,9 %, 7,6 %, 5,4 %. Les élèves sont deux fois plus nombreux à essuyer un échec dans le cadre du cours précollégial que dans le cadre du cours préuniversitaire, et ceci, pour les trois années scolaires. Le taux d'échec en chimie de 7,6 % est à la baisse en 2003-2004 comparativement aux années précédentes (9,5 % en 2001-2002 et 9,3 % en 2002-2003). Le taux d'échec dans le cours préuniversitaire de physique est semblable aux années précédentes (8,5 %, 7,8 %, 7,9 %). Il n'y a pas de différence majeure entre les distributions des résultats du cours précollégial de 2001-2002 à 2003-2004. Il en est de même pour les cours préuniversitaires.

Il semble que les pourcentages d'échec dans les matières de base sont à la baisse malgré l'augmentation observée uniquement en 2002-2003. Il semble alors que les élèves franco-ontariens sont plus nombreux à obtenir leurs crédits de 11^{e} année que dans les années précédentes.

3. Rendement scolaire dans les cours de base (français, mathématiques, sciences et English) – 12^{e} année

Cette section présente le rendement scolaire des élèves dans le cadre des cours de base de la 12^{e} année. Les distributions des résultats scolaires des années scolaires 2002-2003 et 2003-2004 sont présentées sous forme de tableau. L'examen de ces tableaux est suivi d'une analyse des résultats scolaires de l'année 2003-2004.

a. Français

Les distributions des résultats scolaires, présentés au tableau 7.4, ne semblent pas avoir changé entre 2002-2003 et 2003-2004. Nous notons cependant une légère diminution des taux d'échecs du cours précollégial et du cours préuniversitaire.

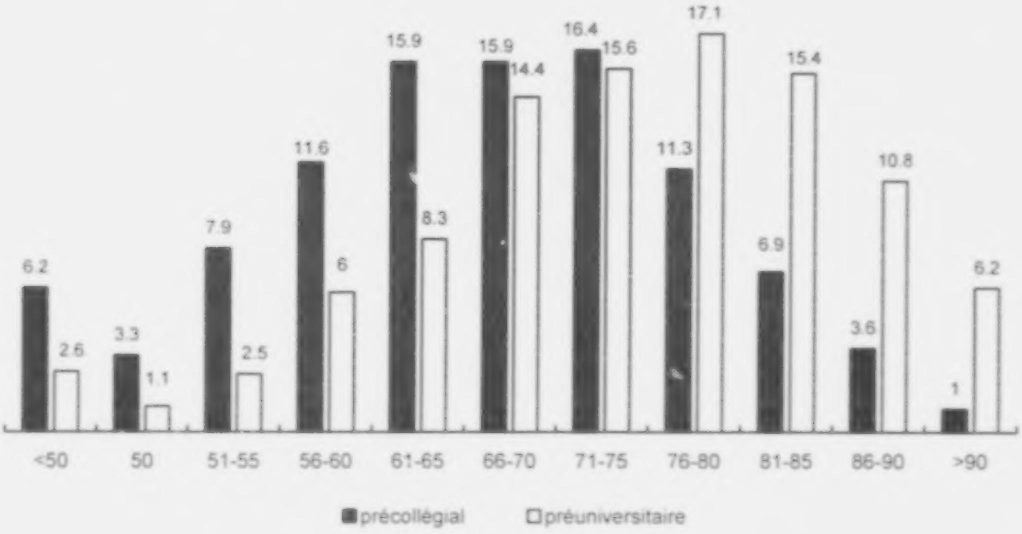
Tableau 7.4 : Distribution des notes finales – 12^{e} année – Français*

Cours	Année	<50	50	51-55	56-60	61-65	66-70	71-75	76-80	81-85	86-90	>90
FRA4C (précollégial)	2002-03	7,0	3,0	10,1	13,4	14,4	15,6	14,9	11,3	6,2	3,1	0,9
	2003-04	6,2	3,3	7,9	11,6	15,9	15,9	16,4	11,3	6,9	3,6	1,0
FRA4U (préuniversitaire)	2002-03	3,7	1,1	3,9	6,0	7,4	13,2	15,1	16,7	15,7	10,7	6,5
	2003-04	2,6	1,1	2,5	6,0	8,3	14,4	15,6	17,1	15,4	10,8	6,2

* Analyse basée sur les données du Groupe de gestion de l'information, ministère de l'Éducation de l'Ontario.

La figure 7.1 présente les résultats scolaires du cours de français de la 12^{e} année (2003-2004).

Figure 7.1 : Distribution des notes finales - 12^{e} année - Français (2003-04)*



* Analyse basée sur les données du Groupe de gestion de l'information, ministère de l'Éducation de l'Ontario.

Il y a des différences importantes entre les distributions des résultats des différents types de cours. Les élèves inscrits au cours précollégial échouent dans une proportion de 9,5 % (résultats de 50 % et de moins de 50 %). Seulement 11,5 % de ces élèves parviennent à obtenir une note finale supérieure à 80 %. Par ailleurs, 3,7 % des élèves du cours préuniversitaire échouent le cours de français FRA4U et près de 32,4 % d'entre eux obtiennent une note finale supérieure à 80 %. Les résultats se distribuent à peu près normalement.

b. Mathématiques

Le tableau 7.5 indique une tendance à la baisse des pourcentages d'échec pour tous les cours de mathématiques entre 2002-2003 et 2003-2004, sauf pour le cours MAP4C, « Mathématiques du collège et des métiers » où l'on observe une légère augmentation de 10,6 % à 11,4 %. Dans ce même cours, par contre, on note une augmentation du nombre d'élèves qui obtiennent une note finale supérieure à 80 % (de 19 % à 21,7 %). Le taux d'échec pour le cours précollégial MCT4C passe de 12,8 % en 2002-2003 à 9,5 % en 2003-2004.

Tableau 7.5 : Distribution des notes finales – 12^e année – Mathématiques[a]

Cours[b]	Année	<50	50	51-55	56-60	61-65	66-70	71-75	76-80	81-85	86-90	>90
MAP4C	2002-03	7,2	3,4	10,0	10,2	12,0	15,0	13,1	10,2	8,3	7,2	3,5
	2003-04	7,3	4,1	9,1	10,5	14,1	13,3	10,0	9,8	9,9	7,1	4,7
MCT4C	2002-03	6,2	6,6	7,3	10,0	9,3	13,1	13,1	13,1	9,7	6,9	4,6
	2003-04	3,7	5,8	9,0	11,1	11,6	13,8	15,9	10,1	9,5	5,3	4,2
MCB4U	2002-03	8,2	2,9	6,1	7,2	8,6	10,5	9,5	12,2	11,7	10,2	12,9
	2003-04	7,2	2,7	5,6	9,2	8,3	9,8	12,2	11,7	11,7	10,6	11,0
MDM4U	2002-03	4,2	3,9	7,7	7,9	11,4	12,7	12,9	10,4	10,8	9,5	8,5
	2003-04	4,9	1,7	4,1	6,8	13,8	12,0	15,9	13,2	9,9	11,1	6,6
MGA4U	2002-03	7,0	3,2	4,3	6,1	9,5	10,6	9,7	11,9	11,0	14,5	12,2
	2003-04	5,2	2,1	4,0	5,6	7,2	10,2	11,4	15,0	13,5	13,8	12,2

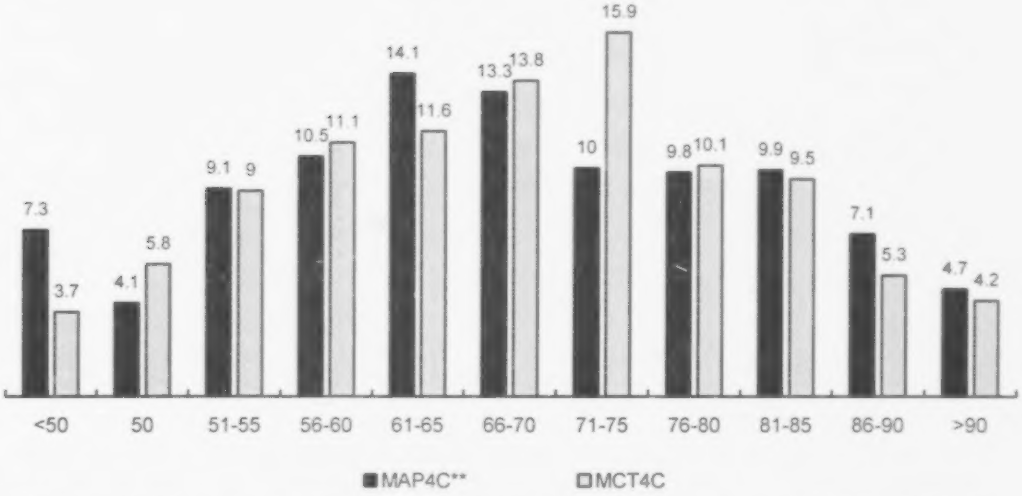
[a] Analyse basée sur les données du Groupe de gestion de l'information, ministère de l'Éducation de l'Ontario.

[b] MAP4C – Mathématiques du collège et des métiers, MCT4C – Mathématiques de la technologie au collège, MCB4U – Fonctions avancées et introduction au calcul différentiel, MDM4U – Mathématiques de la gestion des données, MGA4U – Géométrie et mathématiques discrètes.

Le taux d'échec des élèves qui suivent les cours préuniversitaires est à la baisse : de 11,1 % à 9,9 % pour le cours « Fonctions avancées et introduction au calcul différentiel » (MCB4U), de 8,1 % à 6,6 % pour le cours « Mathématiques de la gestion des données » (MDM4U) et de 10,2 % à 7,3 % pour le cours « Géométrie et mathématiques discrètes » (MGA4U).

Les figures 7.2 et 7.3 présentent respectivement les résultats des cours précollégiaux et préuniversitaires pour l'année scolaire 2003-2004.

Figure 7.2 : Distribution des notes finales - 12e année Mathématiques, cours précollégiaux (2003-04)*

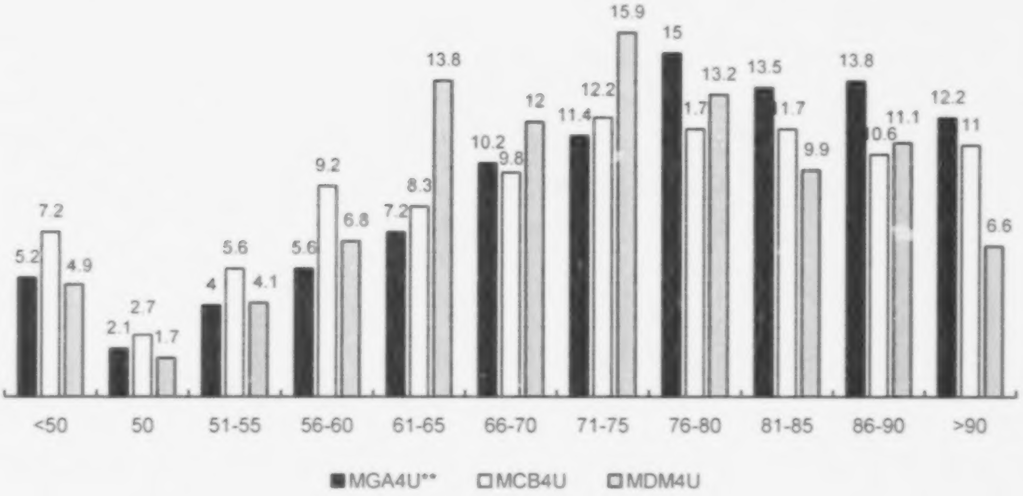


* Analyse basée sur les données du Groupe de gestion de l'information, ministère de l'Éducation de l'Ontario.

**MAP4C – Mathématiques du collège et des métiers, MCT4C – Mathématiques de la technologie au collège.

Les élèves inscrits aux trois cours préuniversitaires sont plus nombreux que les élèves des deux cours précollégiaux à obtenir des résultats supérieurs à 70 %. Nous observons aussi que les taux d'échec sont plus élevés chez les élèves des cours précollégiaux, sauf pour le cours préuniversitaire MCB4U (MAP4C 11,4 %, MCT4C 9,5 % et MCB4U 9,9 %, MGA4U 7,3 %, MDM4U 6,6 %). Il ne semble pas y avoir de différence significative entre les distributions des résultats aux deux cours précollégiaux sauf pour ce qui est du pourcentage des échecs. Le pourcentage d'échec au cours préuniversitaire, « Fonctions avancées et introduction au calcul différentiel » (MCB4U), est supérieur au taux d'échec des deux autres cours préuniversitaires.

Figure 7.3 : Distribution des notes finales - 12^e année Mathématiques, cours préuniversitaires (2003-04)*



* Analyse basée sur les données du Groupe de gestion de l'information, ministère de l'Éducation de l'Ontario.

**MGA4U – Géométrie et mathématiques discrètes, MCB4U – Fonctions avancées et introduction au calcul différentiel, MDM4U – Mathématiques de la gestion des données.

c. Sciences

La lecture du tableau 7.6 des résultats scolaire en sciences indique que les taux d'échec sont également à la baisse pour tous les cours préuniversitaires et précollégiaux de sciences de 12^e année, à l'exception du cours de physique SPH4U où le taux d'échec passe de 6,3 % à 7,2 %.

Tableau 7.6 : Distribution des notes finales – 12^e année – Sciences[a]

Cours[b]	Année	<50	50	51-55	56-60	61-65	66-70	71-75	76-80	81-85	86-90	>90
SBI4U	2002-03	2,2	2,4	5,7	7,6	7,9	10,2	12,3	13,9	16,5	12,2	9,1
	2003-04	2,6	0,6	3,6	5,8	7,5	11,1	12,9	15,5	18,2	12,5	9,5
SCH4C	2002-03	9,5	2,4	10,1	7,4	14,5	14,2	13,9	11,0	8,3	4,7	3,9
	2003-04	9,2	2,8	13,1	9,9	12,4	10,2	12,7	11,0	8,1	6,0	4,6
SCH4U	2002-03	3,8	2,2	5,4	5,3	11,1	11,2	12,5	14,3	12,4	11,7	9,9
	2003-04	3,4	1,6	4,3	6,8	7,7	13,0	12,3	16,5	15,9	10,0	8,5
SPH4C	2002-03	11,1	7,2	8,7	11,5	10,6	19,2	9,6	6,7	10,6	3,8	1,0
	2003-04	8,8	4,4	11,9	11,9	8,8	13,1	10,6	13,1	7,5	4,4	5,6
SPH4U	2002-03	3,1	3,2	4,6	5,4	8,7	9,5	12,8	16,6	14,5	10,9	10,7
	2003-04	4,7	2,5	7,5	5,8	7,4	11,4	14,0	14,8	15,2	9,5	7,2

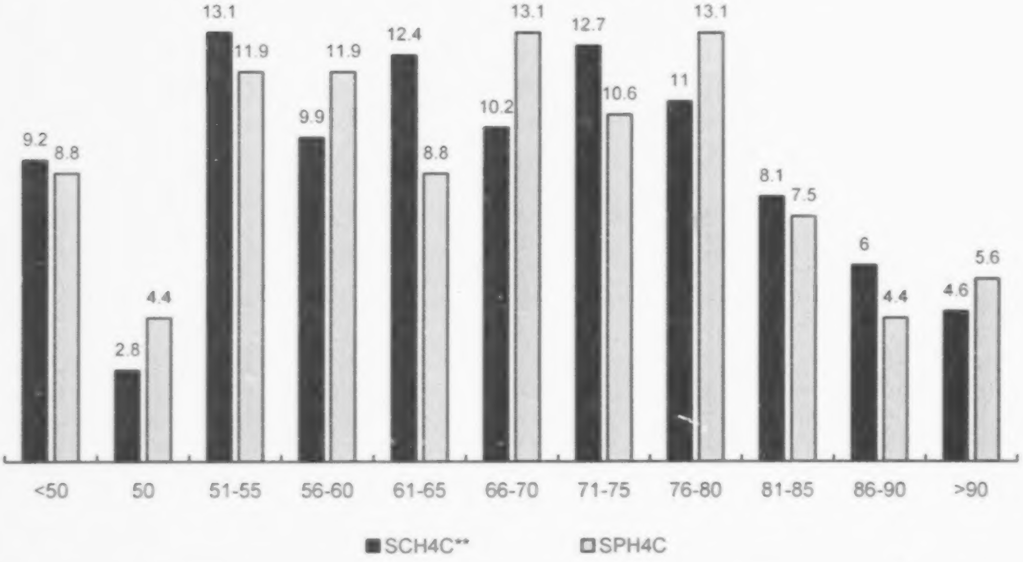
[a] Analyse basée sur les données du Groupe de gestion de l'information, ministère de l'Éducation de l'Ontario.

[b] SBI4U – Biologie, cours préuniversitaire, SCH4C – Chimie, cours précollégial, SCH4U – Chimie, cours préuniversitaire, SPH4C – Physique, cours précollégial, SPH4U – Physique, cours préuniversitaire.

On note une amélioration généralisée des notes pour le cours SPH4C (physique) où le taux d'échec est tombé de 18,4 % à 13,2 % entre 2002-2003 et 2003-2004. Les notes supérieures à 85 % ont aussi augmenté, soit de 15,4 % à 17,5 %, pour le cours SPH4C. C'est l'inverse dans le cas du cours préuniversitaire de physique (de 36,1 % à 31,9 %). Il n'y a pas de différences importantes entre les distributions des résultats des cours précollégiaux et préuniversitaires de chimie entre 2002-2003 et 2003-2004. Il en est de même pour le cours SBI4U.

L'examen des figures 7.4 et 7.5 nous permet de conclure que les élèves des cours préuniversitaires semblent mieux réussir en 2003-2004 que leurs camarades inscrits aux cours précollégiaux.

Figure 7.4 : Distribution des notes finales - 12^e année Sciences, cours précollégiaux (2003-04)*

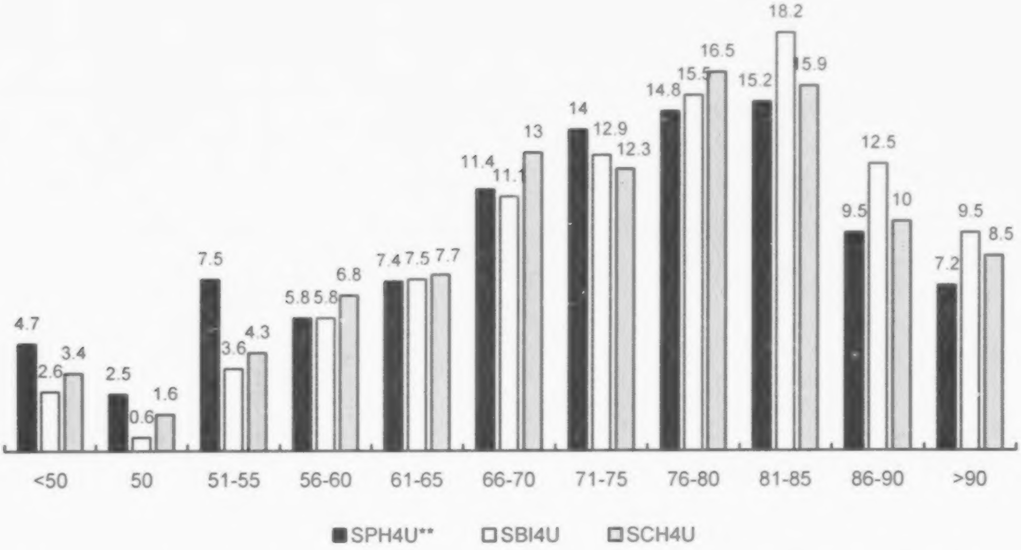


* Analyse basée sur les données du Groupe de gestion de l'information, ministère de l'Éducation de l'Ontario.

**SCH4C – Chimie, cours précollégial, SPH4C – Physique, cours précollégial.

Le taux d'échec est plus élevé dans les cours précollégiaux de physique et de chimie (13,2 % et 12 %, respectivement) que dans leur contrepartie du préuniveraitaire (7,2 % et 5 %, respectivement). Les élèves des deux types de cours ne semblent pas avoir plus de difficulté en une matière qu'une autre. Les résultats des cours préuniversitaires de biologie, de chimie et de physique sont particulièrement élevés.

Figure 7.5 : Distribution des notes finales - 12^e^ année
Sciences, cours préuniversitaires (2003-04)*



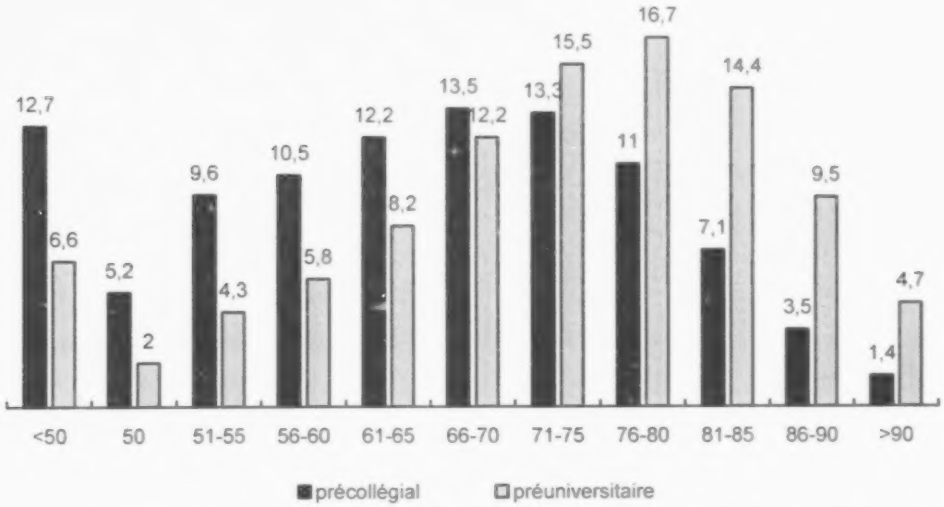
* Analyse basée sur les données du Groupe de gestion de l'information, ministère de l'Éducation de l'Ontario.

**SPH4U – Physique, cours préuniversitaire, SBI4U – Biologie, cours préuniversitaire, SCH4U – Chimie, cours préuniversitaire.

d. English

La figure 7.6 présente les distributions des résultats scolaires des cours d'English.

Figure 7.6 : Distribution des notes finales - 12^e année - English (2003-04)*



* Analyse basée sur les données du Groupe de gestion de l'information, ministère de l'Éducation de l'Ontario.

Le rendement des élèves de 12^e année en English semble moins élevé que leur rendement en français, tout type de cours confondu. Les taux d'échec sont approximativement deux fois plus élevés en English qu'en français. En effet, 15,9 % des élèves du cours précollégial et 8,6 % des élèves du cours préuniversitaire obtiennent un résultat de 50 % ou moins, alors qu'en français les pourcentages d'échec sont de 9,5 % au cours précollégial et de 3,7 % au cours préuniversitaire. Comme ce que nous observons pour les cours de français, les pourcentages d'élèves obtenant des résultats entre 51 % et 65 % sont beaucoup plus élevés chez les élèves suivant un cours précollégial que chez les élèves du cours préuniversitaire. Et à l'inverse, les pourcentages d'élèves obtenant des résultats de 71 % à 90 % et plus sont plus élevés au cours préuniversitaire.

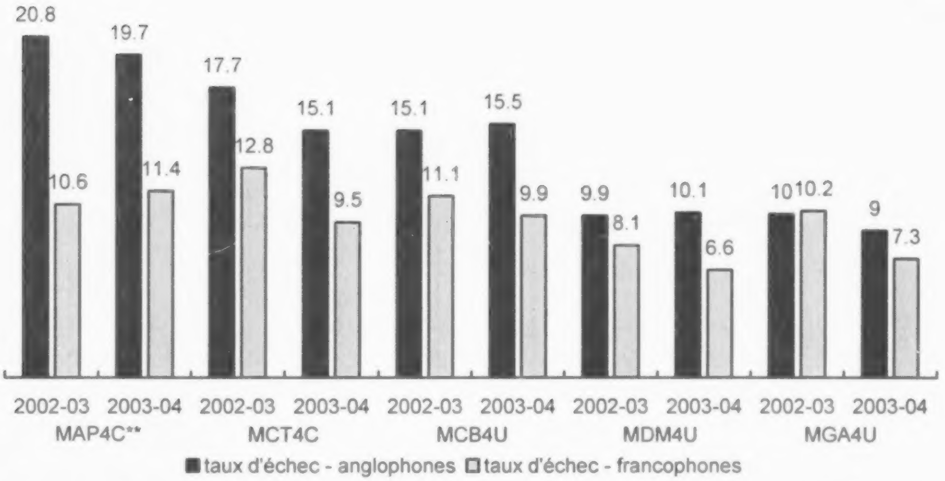
4. Conclusions

Les élèves qui suivent les cours préuniversitaires maintiennent la tendance observée dans le cadre des analyses des trois phases précédentes à obtenir de meilleurs résultats scolaires que les élèves qui suivent les cours précollégiaux. Les pourcentages d'échec et les notes de 50 % sont, dans presque tous les cours des diverses disciplines scolaires, plus élevés dans les cours précollégiaux que dans les cours préuniversitaires. Le ministère de l'Éducation a entrepris la révision du curriculum dans le cadre du programme Maintien d'un curriculum de qualité sur un cycle de cinq ans. Il est peut-être opportun d'examiner de plus près les « contenus », les approches didactiques et la mise en œuvre des cours de la filière précollégiale.

C. Comparaison du rendement scolaire des élèves francophones et anglophones dans les cours de 12^e année

Le rendement scolaire des élèves francophones et anglophones, en termes de distribution des résultats scolaires, est semblable pour l'ensemble des cours de base des filières précollégial et préuniversitaire. C'est au niveau des taux d'échec que l'on remarque une importante différence. Il importe de rappeler ici que les expressions, taux d'échec et pourcentages d'échec, représentent la somme du pourcentage des résultats de moins de 50 % et du pourcentage de 50 %. Les figures 7.7 à 7.8 illustrent ces comparaisons en présentant les taux d'échec par cours, en regroupant dans la figure les cours de type précollégial puis les cours de type préuniversitaire.

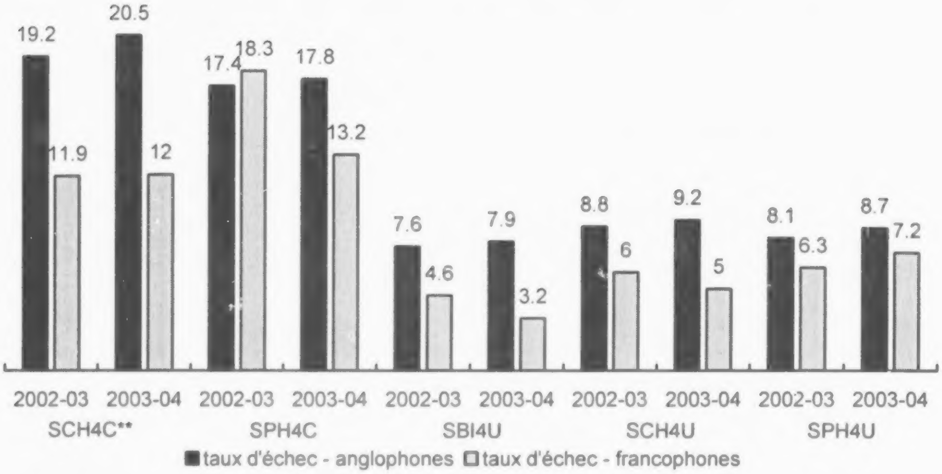
Figure 7.7 : Taux d'échecs - 12^e année - Mathématiques
Comparaison anglophones/francophones (2002-04)*



* Analyse basée sur les données du Groupe de gestion de l'information, ministère de l'Éducation de l'Ontario.

**MAP4C – Mathématiques du collège et des métiers, MCT4C – Mathématiques de la technologie au collège, MCB4U – Fonctions avancées et introduction au calcul différentiel, MDM4U – Mathématiques de la gestion des données, MGA4U – Géométrie et mathématiques discrètes.

Figure 7.8 : Taux d'échecs - 12^e année - Sciences
Comparaison anglophones/francophones (2002-04)*

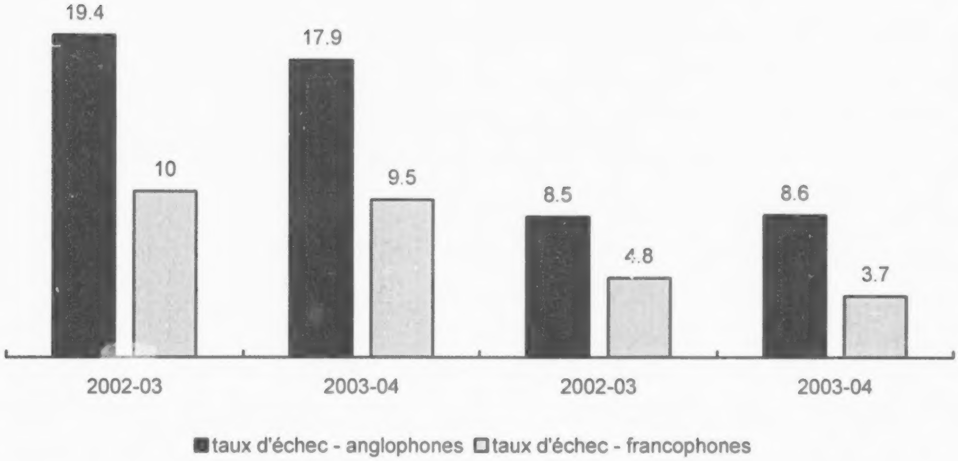


* Analyse basée sur les données du Groupe de gestion de l'information, ministère de l'Éducation de l'Ontario.

**SCH4C – Chimie, cours précollégial, SPH4C – Physique, cours précollégial, SBI4U – Biologie, cours préuniversitaire, SCH4U – Chimie, cours préuniversitaire, SPH4U – Physique, cours préuniversitaire.

La figure 7.9 présente les taux d'échec des élèves des écoles de langue française dans les cours de français et des élèves des écoles de langue anglaise dans les cours d'English.

Figure 7.9 : Taux d'échec - 12e année - Français et English (FRA et ENG)
Comparaison anglophones/francophones (2002-04)*

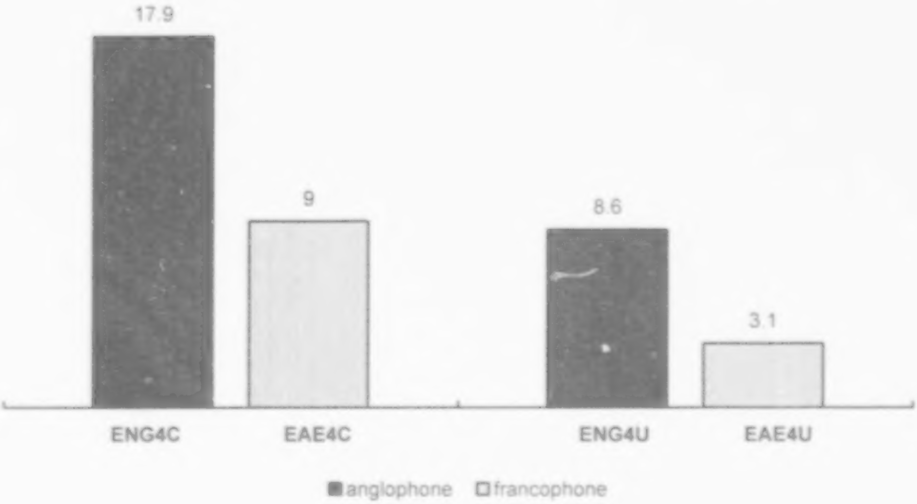


* Analyse basée sur les données du Groupe de gestion de l'information, ministère de l'Éducation de l'Ontario.

Les pourcentages d'échec chez les francophones sont approximativement la moitié des taux d'échec observés chez les élèves anglophones. C'est aussi le cas pour les cours de sciences (voir la figure 7.8).

La figure 7.10 présente les taux d'échec des élèves des écoles de langue française aux cours d'English (EAE) et les taux d'échec des élèves des écoles de langue anglaise aux cours d'English (ENG).

Figure 7.10 : Taux d'échecs - 12^e année - English (ENG et EAE)
Comparaison anglophones/francophones (2003-04)*



* Analyse basée sur les données du Groupe de gestion de l'information, ministère de l'Éducation de l'Ontario.

L'examen de cette figure révèle qu'il y a une différence significative entre les pourcentages d'échecs des élèves francophones et des élèves anglophones. Nous remarquons par ailleurs que les échecs sont beaucoup moins nombreux dans le cas de la filière préuniversitaire. Les distributions des résultats scolaires (voir le tableau 2.6 de la page 37) sont par ailleurs semblables.

L'on observe qu'entre 2002-2003 et 2003-2004 les pourcentages des échecs sont à la baisse pour la plupart des cours chez les francophones. Il semble par contre que les taux d'échec ont tendance à demeurer stable (ou augmenter) chez les élèves anglophones, surtout en mathématiques et en sciences (voir la figure 2.11 de la page 42 et la figure 2.13 de la page 43). Les taux d'échec des élèves francophones sont significativement inférieurs aux taux d'échec des élèves anglophones et ce dans presque tous les cours de base des filières précollégiale et préuniversitaire. Ces différences peuvent expliquer, du moins en partie, les différences remarquées entre les taux d'obtention du DESO chez les élèves francophones et les élèves anglophones (voir le tableau 7.7).

D. Taux d'obtention du DESO après quatre ans et cinq ans d'études au secondaire

Le tableau 7.7 présente les taux d'obtention du DESO pour la première et la deuxième cohorte du nouveau programme au secondaire. Les différences entre les deux groupes linguistiques sont frappantes.

Tableau 7.7 : Taux d'obtention du DESO après 4 ans et 5 ans d'études secondaires (2002-03 et 2003-04)*

	Échantillon total	Élèves francophones seulement
Finissants – 4 ans Première cohorte	57,2	70,1
Finissants – 4 ans Deuxième cohorte	59,4	73,2
Finissants – 5 ans	70,4	80,8

* Source : Ministère de l'Éducation de l'Ontario.

Le taux de réussite scolaire chez les francophones est plus élevé que chez les élèves de langue anglaise. Les taux d'échec dans les matières de base démontrent que cette tendance semble se maintenir. On note aussi qu'une plus grande proportion d'élèves francophones obtiennent leur diplôme d'études secondaires de l'Ontario (DESO) que leurs camarades anglophones.

E. Raisons invoquées par les élèves de la première cohorte pour terminer une cinquième année d'études au secondaire

Certains élèves choisissent de terminer une cinquième année d'études au secondaire. Les raisons invoquées pour ce choix sont multiples, mais la moitié des élèves reviennent à l'école pour suivre des cours qui leur permettront d'obtenir les crédits nécessaires à l'obtention du DESO. Cinquante-neuf pour cent des élèves qui choisissent de terminer une cinquième année d'études (ou qui doivent le faire pour satisfaire aux conditions d'obtention du DESO) sont des garçons. Ces élèves parviennent à terminer leurs études tout en travaillant à temps partiel (48,5 %) de 10 à 20 heures par semaine ; 76,4 % de ces élèves comptent poursuivre des études postsecondaires.

La plupart des élèves qui terminent une année d'études supplémentaire au secondaire (figure 7.8) sont revenus pour obtenir les crédits nécessaires à l'obtention de leur DESO (51 %). Certains ont choisi d'essayer d'augmenter leurs moyennes avant de faire une demande d'admission à l'université (16,8 %) ou au collège (9,7 %). Plusieurs d'entre eux ont voulu, tout simplement, suivre quelques cours supplémentaires (19,9 %), peut-être pour prendre une année de « semi congé » avant de se lancer dans des études postsecondaires ou sur le marché du travail.

Tableau 7.8 : Raison invoquée pour terminer une cinquième année d'études au secondaire*

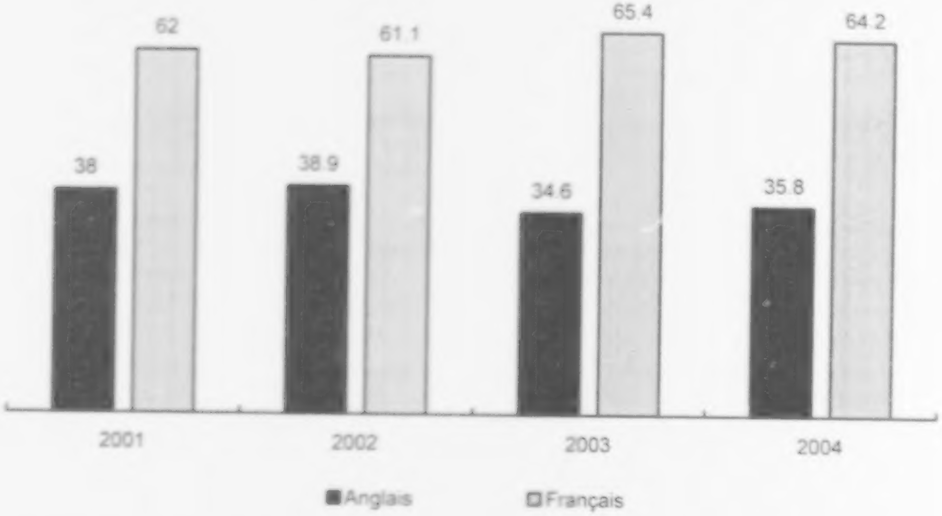
	pourcentage des élèves (oui)
Pour obtenir les crédits nécessaires à l'obtention du DESO	51,0 %
Pour augmenter leurs notes finales avant de faire une demande d'inscription au collège	9,7 %
Pour augmenter leurs notes finales avant de faire une demande d'inscription à l'université	16,8 %
Pour suivre des cours supplémentaires	19,9 %

* Les élèves pouvaient indiquer plus d'une réponse ; par conséquent, les pourcentages ne totalisent pas nécessairement cent pour cent.

F. Choix du cheminement postsecondaire

Le choix de la langue d'enseignement et d'apprentissage est une préoccupation des élèves franco-ontariens comme en témoigne la figure 7.11. Les élèves francophones semblent vouloir poursuivre leurs études postsecondaires dans les universités offrant un programme en langue française. En effet, une proportion élevée (64,2 %) des élèves francophones désirent poursuivre leurs études postsecondaires en français. Un peu plus du tiers des élèves franco-ontariens indiquent leur intention de poursuivre leurs études postsecondaires en anglais. Il est possible que l'offre de programmes en langue française ne soit pas assez exhaustive pour répondre aux besoins de ces élèves.

Figure 7.11 : Choix de langue - programmes universitaires (% 12ᵉ année, 2001-04)*



* Source : Centre de demande d'admission aux universités de l'Ontario.

Les élèves qui ont décidé de revenir à l'école secondaire pour une année supplémentaire semblent vouloir poursuivre des études postsecondaires au collège (40,3 %) ou à l'université (36,1 %). Un faible nombre d'entre eux (1,6 %) ne comptent pas terminer leurs études secondaires et obtenir leur DESO. Seulement 12 % des élèves se dirigent directement sur le marché du travail (tableau 7.9).

Tableau 7.9 : Cheminement postsecondaire (pour les élèves qui terminent une cinquième année d'études)*

	pourcentage des élèves
Marché du travail sans obtenir le DESO	1,6
Marché du travail avec DESO	12,0
Collège	40,3
Université	36,1
Programme de formation professionnelle	1,0
Programme d'apprentissage dans un métier spécialisé	2,6
Autre	3,7
Incertain	2,6

* Analyse basée sur les données du Groupe de gestion de l'information, ministère de l'Éducation de l'Ontario.

Les élèves de 12^e année (tableau 7.10) se dirigent pour la plupart d'entre eux au collège (35,4 %) ou à l'université (47,4 %). Seulement 5,5 % d'entre eux comptent entrer directement sur le marché du travail après l'obtention du DESO. Nous notons une différence entre les élèves qui terminent une cinquième année d'études au secondaire et ceux qui comptent obtenir leur DESO à la fin de la quatrième année d'études au secondaire – notamment le fait qu'un plus grand nombre d'élèves de 12^e année comptent aller à l'université. L'inverse est vrai pour les élèves terminant une cinquième année d'études – ceux-ci, en plus grand nombre, comptent continuer leurs études postsecondaires au collège.

Tableau 7.10 : Cheminement postsecondaire (12^e année)*

	pourcentage des élèves
Marché du travail sans obtenir le DESO	0,7
Marché du travail avec DESO	5,5
Collège	35,4
Université	47,4
Programme de formation professionnelle	1,2
Programme d'apprentissage dans un métier spécialisé	2,2
Autre	4,4
Incertain	3,3

* Analyse basée sur les données du Groupe de gestion de l'information, ministère de l'Éducation de l'Ontario.

La figure 7.12 illustre les demandes d'admission des élèves provenant directement d'une école secondaire francophone de l'Ontario aux trois collèges francophones de l'Ontario en 2003 et 2004. Nous ne pouvons pas faire d'extrapolations sur la base de seulement deux années scolaires. (Nous n'avons pas eu accès aux données sur les inscriptions réelles.) Il est toutefois intéressant de noter que l'année 2003 était celle où la double cohorte faisait son arrivée sur la scène postsecondaire. Comme l'on pouvait s'y attendre, les demandes d'admission sont à la baisse, étant donné que la cohorte potentielle de candidates et candidats aux collèges et aux universités de septembre 2003 « était le double » de la cohorte de septembre 2004 (sauf pour le programme du Collège d'Alfred). Nous observons à la figure 7.12 une diminution de 158 demandes d'admission à la Cité collégiale alors que la diminution est de 128 demandes d'admission au Collège Boréal. Il y a une légère hausse des demandes d'admission au Collège d'Alfred, collège qui se spécialise en agriculture et autres programmes du genre.

Figure 7.12 : Demandes d'admission - Collèges francophones (Étudiantes/étudiants provenant directement d'une école secondaire, 2003 et 2004)

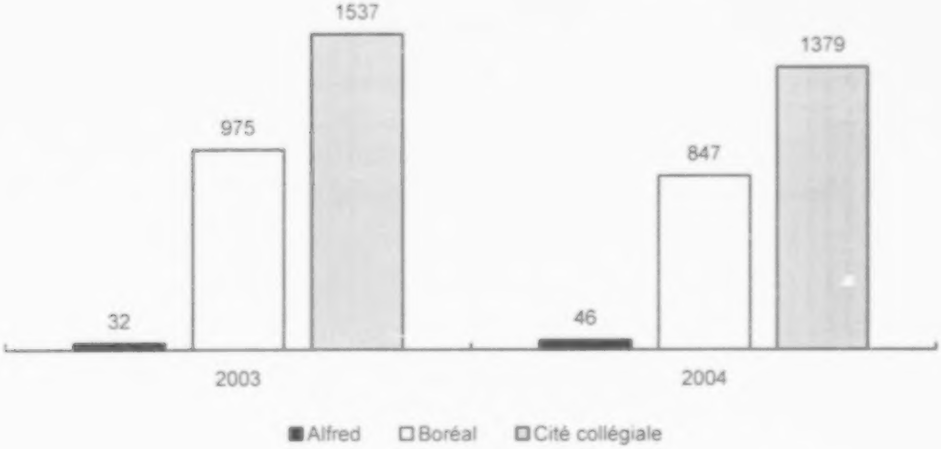
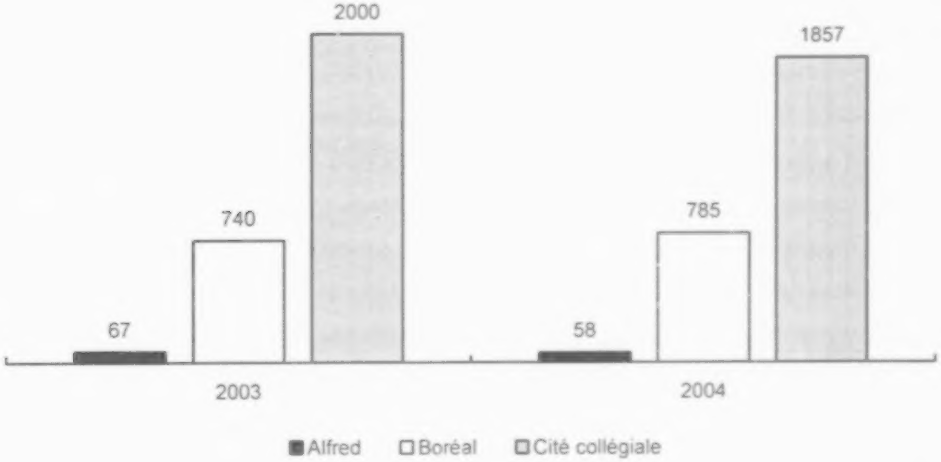
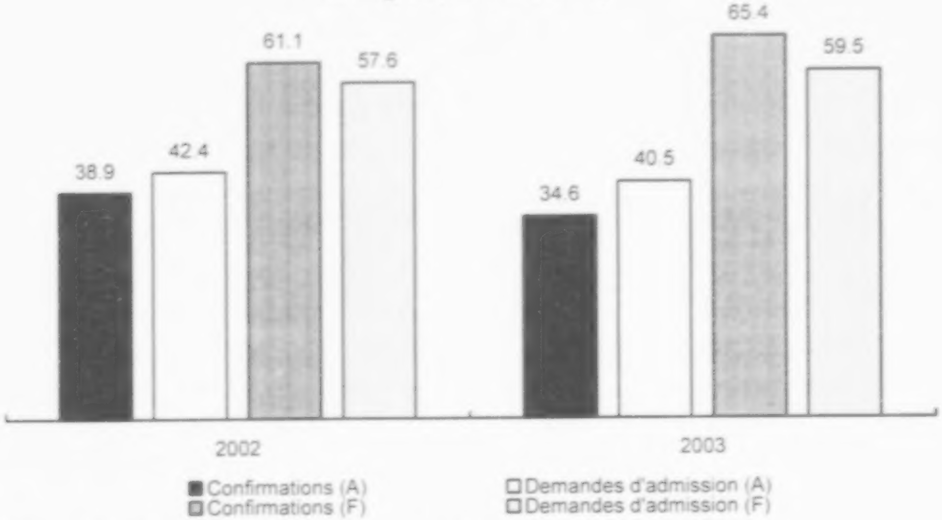


Figure 7.13 : Demandes d'admission - Collèges francophones (Étudiantes/étudiants ne provenant pas directement d'une école secondaire, 2003 et 2004)



Le nombre d'élèves qui font des demandes d'admission aux programmes collégiaux (ne provenant pas directement des écoles secondaires) est aussi à la baisse, sauf au Collège Boréal. La figure 7.13 illustre cette diminution – de 2 000 demandes d'admission à 1 857 à la Cité collégiale et de 67 à 58 demandes d'admission au Collège d'Alfred. Le Collège Boréal passe de 740 à 784 demandes d'admission. Il est intéressant de noter qu'une proportion importante des élèves qui font des demandes d'admission aux collèges de langue française de l'Ontario sont des élèves qui ne proviennent pas directement des écoles secondaires (sauf en ce qui concerne le Collège Boréal). Il est possible que ce phénomène s'explique par le nombre d'adultes qui choisissent un changement de carrière et qui retournent aux études.

Figure 7.14 : Demandes d'admission et confirmations - universités (Élèves francophones, programmes en français et en anglais, 2002 et 2003)*



* Source : Centre de demande d'admission aux universités de l'Ontario

La figure 7.14 illustre un phénomène intéressant, soit la différence entre les demandes d'admission et les confirmations aux universités dans les programmes de langue française (F) ou de langue anglaise (A). On remarque qu'un plus grand nombre d'élèves font une demande d'admission en français (65,4 % en 2003, 61,1 % en 2002) qu'il y a, en bout de compte, de confirmations d'admission aux programmes de langue française (59,5 % en 2003 et 57,6 % en 2002). Les demandes d'admission et les confirmations d'admission ont augmenté légèrement. L'inverse est vrai pour les programmes de langue anglaise auxquels les élèves francophones font une demande d'admission. Il serait intéressant de comprendre pourquoi ce phénomène se produit — il est possible que plusieurs élèves bilingues décident de choisir le meilleur programme offert par les établissements postsecondaires sans devoir se limiter aux programmes en français. Il est possible aussi que plusieurs programmes qui intéressent les élèves ne soient pas offerts en français, ou que l'offre de cours dans les universités bilingues soit plus limitée.

G. Résumé

Le rendement scolaire des élèves de la 11^e année (trois cohortes du nouveau programme) et de la 12^e année (deux cohortes du nouveau programme) semble s'améliorer depuis la mise en œuvre du nouveau programme au secondaire. Les taux d'échec diminuent et plus d'élèves obtiennent les crédits nécessaires à l'obtention du DESO sans avoir à reprendre des cours. Nous observons par contre une croissance des échecs aux cours de base de la 9^e année à la 12^e année. Les pourcentages d'échec augmentent en relation avec l'année d'études. Nous remarquons par ailleurs une augmentation des taux de réussite dans la majorité des cours de types théorique et préuniversitaire au cours des cinq premières années du nouveau programme. La majorité des élèves terminent leurs études secondaires en quatre ans et un faible pourcentage d'élèves reviennent terminer une cinquième année d'études au secondaire.

Une attention particulière doit être portée aux cours de la filière précollégiale, car c'est dans cette filière que les échecs sont les plus nombreux et que les résultats scolaires sont les plus faibles. La révision du curriculum entreprise par le ministère de l'Éducation ainsi que les efforts de formation du corps enseignant pour la mise en œuvre des initiatives de littératie et de numératie nous semblent prometteurs.

Les écoles secondaires de langue française éprouvent des difficultés à offrir des cours dans toutes les filières et c'est spécialement le cas pour les filières préemploi et précollégiale en 11^e et en 12^e année.

Le taux d'obtention du DESO est passé de 70,1 % en 2002-2003 à 73,2 % en 2003-2004 alors que 80,8 % des élèves qui font une cinquième année d'études au secondaire obtiennent leur DESO. Ces taux ressemblent aux taux observés en Colombie-Britannique et en Alberta, mais ils sont inférieurs aux taux observés au Nouveau-Brunswick et en Nouvelle-Écosse. Nous n'avons pas de données qui nous permettent de faire des comparaisons avec les élèves francophones de ces provinces. Une plus grande proportion d'élèves francophones de l'Ontario obtiennent le DESO comparativement à leurs camarades anglophones de la province. Il n'en demeure pas moins qu'un taux d'un peu plus de 25 % d'élèves qui n'obtiennent pas le DESO est élevé. Une cinquième année d'études au secondaire (afin de reprendre un ou quelques cours) permet à la majorité d'entre eux (80,8 %) d'obtenir le DESO.

La majorité des élèves franco-ontariens choisissent, à la fin du secondaire, de poursuivre leurs études au collège ou à l'université. Tout près des deux tiers des élèves ont fait une demande d'admission dans des programmes postsecondaires offerts en français. Par contre, plusieurs élèves semblent contraints de s'inscrire dans des programmes postsecondaires offerts en anglais.

Appendix A

Double Cohort Surveys

- Grade 12
- 5th Year

5th Year Returnee Questionnaire

Enquête sur la double cohorte

- 12e année
- 5e année d'études au secondaire

Questionnaire concernant les élèves qui complètent une 5e année d'études au secondaire

Ontario
Ministry of Education

Double Cohort Survey
Grade 12
(2000/2001 Grade 9 Cohort)

Aussi disponible en français

To the Student:

You are in the second group of students to experience the reorganized secondary school program. The purpose of this study is to ensure that the program is effective and gain information about your courses, achievement, and career plans so that we may better prepare to help students meet their goals after high school.

If you were able to participate in the survey last school year, you will notice that some of the questions are the same. You may now have different plans and some of your activities may have changed.

Your contribution is significant to the success of this study. However, your participation is voluntary.

It should take you between 15 and 20 minutes to complete the questionnaire. Your information will be kept confidential.

We appreciate your involvement in this important study. If you have any questions about the study, please ask your teacher.

If you are interested in the results of last year's survey, go to: www.edu.gov.on.ca/eng/document/reports/phase3/index.html.

Winter 2004 (January 12, 2004)

**FOR SCHOOL USE ONLY –
IF STUDENT NOT IDENTIFIED ABOVE**

Student MIN number

Student's full name

Student's date of birth

Student Status

(circle code for appropriate type)

P = Student completed survey
SR = Student declined to participate
PR = Parent declined to have student participate
SA = Student absent
TI = Student has transferred into school
TO = Student has transferred to another school
DO = Student has dropped out of school
D = Student deceased
DK = Whereabouts of student unknown
NC = Student is not from 00/01 Grade 9 cohort

Instructions

Please read and answer each question carefully. For most of the questions, please place a **check mark** in the box to the right of the question.

For some questions, you may need to print a number in the box or write in the space provided.

When you have completed the questionnaire, place it face down in front of you, and wait for your teacher's instructions.

1. Are you male or female?

Male ☐
Female ☐

2. When were you born? *For example, if you were born on September 8, 1985, you would write*

0 8 *in the boxes beside 'Day',*
0 9 *in the boxes beside 'Month', and*
8 5 *in the boxes beside 'Year'.*

a. Day ☐☐
b. Month (Jan = 01, Feb = 02, etc.) ☐☐
c. Year 1 9 ☐☐

3. On average, how many **hours per week** do you usually spend on homework? *(Place the number of hours in the box(es), rounded to the nearest hour.)*

☐☐

4. Do you currently have a part-time job(s) for which you are paid?

Yes ☐
No ☐

a. If you answered 'Yes' to question 4, indicate the number of hours you usually work in a week.

During the week (Monday to Thursday) ☐☐
On the weekend (Friday to Sunday) ☐☐

5. Did you take a summer school course(s) this past summer?

No ☐
Yes, one ☐
Yes, two ☐

a. If you answered 'Yes' to question 5, what was the **main** reason that you took a summer school course this past summer? *(Place a check mark in* ***only one*** box.)

To make up a failed/missing credit ☐
To raise a passing mark to a higher mark ☐
To be able to graduate sooner ☐
Other *(please write in)* ☐

____

b. If you took a summer school course(s) this past summer, list the course(s), course type(s) and grade.

Course	Course type	Grade
(e.g., Math	University	11)

6. Indicate below whether or not you passed all your courses in Grades 9, 10 and 11. (Do not include summer courses.)

	Passed **all** courses	Failed **one** course	Failed **two or more** courses
Grade 9	☐	☐	☐
Grade 10	☐	☐	☐
Grade 11	☐	☐	☐

7. How many summer school courses have you **successfully completed** up to now? ☐

8. All students in the new program are required to complete 40 hours of community involvement activities. How many hours of community involvement activities have you completed to date? *Please write in the number of hours; if none, write* $\boxed{0}\boxed{0}$ *.* ☐☐

9. Please indicate how many of each type of Grade 12 course you are taking **this** school year (both semesters). *For example, if you were/are taking 7 courses this year, 2 University, 4 University/College, and 1 Open, you would place a 2 in the University box* $\boxed{2}$ *, 4 in the University/College box* $\boxed{4}$ *, and 1 in the Open box* $\boxed{1}$ *.*

Type of course	**# Grade 12 courses**
University Preparation (U)	☐
College Preparation (C)	☐
University/College Preparation (U/C)	☐
Workplace Preparation (E)	☐
Open (O)	☐

List the other non-Grade 12 courses you are taking this school year (if any).

____

____

____

10. What type of work are you thinking of doing when you have finished your education (for example, automotive mechanic, teacher, chef, dentist, computer programmer)? *(Please write below.)*

____

____

____

11. Have you participated in any of the following career-related experiences while in high school? *(Place a check mark beside **all** of your activities.)*

- Career Fairs/Career Days ☐
- Workplace/Industry Tours ☐
- Job Shadowing ☐
- Short-term work experience (1 to 4 weeks) ☐
- Cooperative Education ☐
- Ontario Youth Apprenticeship Program (OYAP) ☐
- Other school-based work experiences *(please write below)* ☐

____

12. Are you taking a course(s) through cooperative education (co-op) this school year? *(Include both semesters.)*

- Yes ☐
- No ☐

a. If you answered 'Yes' to question 12, where is/was your cooperative education placement? *(e.g., auto repair shop, retirement home)*

____

b. If you answered 'Yes' to question 12, is/was your co-op experience related to your career plans?

- Yes, closely related ☐
- Yes, partly related ☐
- No ☐
- Don't know yet ☐

c. If you answered 'Yes' to question 12, what is/are the reason(s) you are taking co-op? *(Place a check mark in **all** of the boxes that apply.)*

- To gain useful work skills ☐
- To explore a possible career ☐
- To improve my chances of admission to college/university ☐
- To apply my classroom learning to practical work experience ☐
- To improve my chances of getting a part-time or summer job ☐
- To have a change from the regular classroom ☐
- Other *(please write in)* ☐

____

13. If you did not take co-op this year, what is the **main** reason? *(Place a check mark in* ***only one*** *box.)*

Not interested in co-op ☐
Taking co-op would prevent me from taking a course(s) required for college or university ☐
No placement of interest to me was available ☐
Not possible to schedule co-op in my timetable ☐
Could not arrange transportation to placement ☐
Already have taken co-op ☐
Other *(please write in)* ☐

____

14. Are you participating in the Ontario Youth Apprenticeship Program (OYAP) this school year? *(Include first semester)*

Yes ☐
No ☐

a. If you answered 'Yes' to question 14, what is your apprenticeship field (e.g., electrician, auto mechanic)?

____

15. Which of the following best describes what you expect to do in the future? *(Place a check mark in* ***only one*** *box.)*

Leave before graduating from high school and go directly to work ☐
Graduate from high school and go directly to work ☐
Graduate from high school and attend college ☐
Graduate from high school and attend university ☐
Graduate from high school and attend a private vocational school (e.g., a business institute, a computer training school) ☐
Graduate from high school and enter an apprenticeship program for a skilled trade (e.g., to be an electrician, plumber or hairdresser) ☐
Other *(please write in)* ☐

____

Uncertain ☐

16. Do you plan to take off a year or more after high school before attending college or university? *(Place a check mark in* ***only one*** *box.)*

Yes ☐
No ☐
Do not know ☐
Do not plan to attend college or university ☐

17. How many years do you expect to take to graduate and leave high school? *(Place a check mark in* ***only one*** *box.)*

Four years ☐
Four and one-half years ☐
Five years ☐
More than five years ☐
Do not expect to graduate ☐
Do not know ☐

18. If you have **not** applied to a university or college this year, check this box. ☐

If you have applied to a university or college this year (for Fall 2004), please indicate below how many you applied to.

	Number applied to
Ontario colleges (Diploma or Certificate Program)	☐
Ontario colleges (Applied Degree Program)	☐
Ontario universities	☐
Colleges outside Ontario, in Canada	☐
Universities outside Ontario, in Canada	☐
Colleges/universities outside of Canada	☐

19. How important have each of the following been in influencing your educational and career plans?

	Very Important	Somewhat Important	Not very important	Not at all important
Parent(s) or guardian(s)	☐	☐	☐	☐
Teacher-Adviser Group or Program (TAG or TAP)	☐	☐	☐	☐
Teacher(s)	☐	☐	☐	☐
Guidance counsellor	☐	☐	☐	☐
Friend(s)	☐	☐	☐	☐
Someone you admire who does the work you would like to do	☐	☐	☐	☐
Participation in career-related activities (e.g., co-op, work experience, Ontario Youth Apprenticeship Program)	☐	☐	☐	☐
Career information (e.g., from TV, internet, newspapers, brochures)	☐	☐	☐	☐
Other *(please write below)*	☐	☐	☐	☐

____

---

20. Were you able to take all the courses you requested this school year?

Yes ☐

No ☐

a. If you answered 'No' to question 20, **what** was the course(s), (course type and grade) you could not take, and **why** could you not take it (them)? *(Place a check mark in **only one** box per course.)*

1st Course (e.g., Visual Arts) **Course Type** (e.g., University/College) **Grade** (e.g., Grade 12)

____

Course not available ☐

Course conflicted with other courses ☐

Not enough students to offer course ☐

Already had eight courses ☐

Course was full ☐

Other *(Please write in)* ☐

____

2nd Course **Course Type** **Grade**

____

Course not available ☐

Course conflicted with other courses ☐

Not enough students to offer course ☐

Already had eight courses ☐

Course was full ☐

Other *(Please write in)* ☐

____

Thank you very much for completing this questionnaire.

Ontario
Ministry of Education

Double Cohort Survey
5th Year
(1999/2000 Grade 9 Cohort)

Aussi disponible en français

To the Student:

We are asking you to complete this fourth questionnaire of the Double Cohort Study. You are part of the first group of students to experience the reorganized secondary school program. The purpose of this study is to gain information about your courses, achievement, and career plans so that we may better prepare to help students meet their goals after high school.

If you were able to participate in the survey last school year, you will notice that some of the questions are the same. You may now have different plans and some of your activities may have changed.

Your contribution is significant to the success of this study. However, your participation is voluntary.

It should take you between 15 and 20 minutes to complete the questionnaire. Your information will be kept confidential.

We appreciate your involvement in this important study. If you have any questions about the study, please ask your teacher.

If you are interested in the results of last year's survey, go to: www.edu.gov.on.ca/eng/document/reports/phase3/index.html.

Winter 2004 (January 12, 2004)

FOR SCHOOL USE ONLY –
IF STUDENT NOT IDENTIFIED ABOVE

Student MIN number

Student's full name

Student's date of birth

Student Status

(circle code for appropriate type)

P = Student completed survey
SR = Student declined to participate
PR = Parent declined to have student participate
SA = Student absent
TI = Student has transferred into school
TO = Student has transferred to another school
DO = Student has dropped out of school
D = Student deceased
DK = Whereabouts of student unknown
NC = Student is not from 99/00 Grade 9 cohort

Instructions

Please read and answer each question carefully. For most of the questions, please place a **check mark** in the box to the right of the question.

For some questions, you may need to print a number in the box or write in the space provided.

When you have completed the questionnaire, place it face down in front of you, and wait for your teacher's instructions.

1. Are you male or female?

Male ☐
Female ☐

2. When were you born? *For example, if you were born on September 12, 1984, you would write*

1 2 *in the boxes beside 'Day',*
0 9 *in the boxes beside 'Month', and*
8 4 *in the boxes beside 'Year'.*

a. Day ☐☐
b. Month (Jan = 01, Feb = 02, etc.) ☐☐
c. Year 1 9 ☐☐

3. On average, how many **hours per week** do you usually spend on homework? *(Place the number of hours in the box(es), rounded to the nearest hour.)*

☐☐

4. Do you currently have a part-time job(s) for which you are paid?

Yes ☐
No ☐

a. If you answered 'Yes' to question 4, indicate the number of hours you usually work in a week.

During the week (Monday to Thursday) ☐☐
On the weekend (Friday to Sunday) ☐☐

5. Did you take a summer school course(s) this past summer?

No ☐
Yes, one ☐
Yes, two ☐

a. If you answered 'Yes' to question 5, what was the **main** reason that you took a summer school course this past summer? *(Place a check mark in **only one** box.)*

To make up a failed/missing credit ☐
To raise a passing mark to a higher mark ☐
Other *(please write in)* ☐

____

b. If you took a summer school course(s) this past summer, list the course(s), course type(s) and grade.

Course (e.g., English	**Course type** University	**Grade** 12)

6. Indicate below whether or not you passed all your courses in Grades 9, 10, 11 and 12. (Do not include summer courses.)

	Passed **all** courses	Failed **one** course	Failed **two or more** courses
Grade 9	☐	☐	☐
Grade 10	☐	☐	☐
Grade 11	☐	☐	☐
Grade 12	☐	☐	☐

7. How many summer school courses have you **successfully completed** up to now? ☐

8. Why did you come back to school for a fifth year? *(Place a check mark in all the boxes that apply.)*
   - To complete graduation requirements ☐
   - To raise marks to apply to college ☐
   - To raise marks to apply to university ☐
   - To take additional courses ☐
   - Other, please specify ☐

   ____

9. What type of work are you thinking of doing when you have finished your education (for example, automotive mechanic, teacher, chef, dentist, computer programmer)? *(Please write below.)*

   ____

   ____

   ____

10. Have you participated in any of the following career-related experiences while in high school? *(Place a check mark beside **all** of your activities.)*
    - Career Fairs/Career Days ☐
    - Workplace/Industry Tours ☐
    - Job Shadowing ☐
    - Short-term work experience (1 to 4 weeks) ☐
    - Cooperative Education ☐
    - Ontario Youth Apprenticeship Program (OYAP) ☐
    - Other school-based work experiences *(please write below)* ☐

    ____

    ____

11. Are you taking a course(s) through cooperative education (co-op) this school year? *(Include both semesters.)*
    - Yes ☐
    - No ☐

    a. If you answered 'Yes' to question 11, where is/was your cooperative education placement? *(e.g., auto repair shop, retirement home)*

    ____

    b. If you answered 'Yes' to question 11, is/was your co-op experience related to your career plans? ☐
    - Yes, closely related ☐
    - Yes, partly related ☐
    - No
    - Don't know yet ☐

    c. If you answered 'Yes' to question 11, what is/are the reason(s) you are taking co-op? *(Place a check mark in **all** of the boxes that apply.)*
    - To gain useful work skills ☐
    - To explore a possible career ☐
    - To improve my chances of admission to college/university ☐
    - To apply my classroom learning to practical work experience ☐
    - To improve my chances of getting a part-time or summer job ☐
    - To have a change from the regular classroom ☐
    - Other *(please write in)* ☐

    ____

12. Are you participating in the Ontario Youth Apprenticeship Program (OYAP) this school year? *(Include first semester)*
    - Yes ☐
    - No ☐

13. Which of the following best describes what you expect to do in the future? *(Place a check mark in **only one** box.)*

- Leave before graduating from high school and go directly to work ☐
- Graduate from high school and go directly to work ☐
- Graduate from high school and attend college ☐
- Graduate from high school and attend university ☐
- Graduate from high school and attend a private vocational school (e.g., a business institute, a computer training school) ☐
- Graduate from high school and enter an apprenticeship program for a skilled trade (e.g., to be an electrician, plumber or hairdresser) ☐
- Other *(please write in)* ☐ ____________________
- Uncertain ☐

14. Do you plan to take off a year or more after high school before attending college or university? *(Place a check mark in **only one** box.)*

- Yes ☐
- No ☐
- Do not know ☐
- Do not plan to attend college or university ☐

15. If you have **not** applied to a university or college this year, check this box. ☐

If you have applied to a university or college this year (for Fall 2004), please indicate below how many you applied to.

	Number applied to
Ontario colleges (Diploma or Certificate Program)	☐
Ontario colleges (Applied Degree Program)	☐
Ontario universities	☐
Colleges outside Ontario, in Canada	☐
Universities outside Ontario, in Canada	☐
Colleges/universities outside of Canada	☐

16. How important have each of the following been in influencing your educational and career plans?

	Very Important	Somewhat Important	Not very Important	Not at all Important
Parent(s) or guardian(s)	☐	☐	☐	☐
Teacher-Adviser Group or Program (TAG or TAP)	☐	☐	☐	☐
Teacher(s)	☐	☐	☐	☐
Guidance counsellor	☐	☐	☐	☐
Friend(s)	☐	☐	☐	☐
Someone you admire who does the work you would like to do	☐	☐	☐	☐
Participation in career-related activities (e.g., co-op, work experience, Ontario Youth Apprenticeship Program)	☐	☐	☐	☐
Career information (e.g., from TV, internet, newspapers, brochures)	☐	☐	☐	☐
Other *(please write below)*	☐	☐	☐	☐

____

17. Were you able to take all the courses you requested this school year?

Yes ☐
No ☐

a. If you answered 'No' to question 17, **what** was the course(s), (course type and grade) you could not take, and **why** could you not take it (them)? *(Place a check mark in **only one** box per course.)*

1st Course (e.g., Visual Arts) **Course Type** (e.g., University/College) **Grade** (e.g., Grade 12)

Course not available ☐
Course conflicted with other courses ☐
Not enough students to offer course ☐
Already had eight courses ☐
Course was full ☐
Other *(Please write in)* ☐

2nd Course **Course Type** **Grade**

Course not available ☐
Course conflicted with other courses ☐
Not enough students to offer course ☐
Already had eight courses ☐
Course was full ☐
Other *(Please write in)* ☐

Thank you very much for completing this questionnaire.

Double Cohort Study- Phase 4: 5th Year Returnee Questionnaire

To the Principal:

In order to obtain information about students who returned this school year for a fifth year, we ask that you complete the following brief questionnaire.

We define '5th year returnees' as **students who began Grade 9 in the 1999/2000 school year**. In other words, they are part of the first new cohort who began secondary school in the restructured program.

Your school's name: ______________________________

Your school's total student enrolment: ______________________

If your school is not semestered, please answer all of part 1 below and skip parts 2 and 3.

1.	Total number of 5th year students as of September 2003:	☐
	a. Number who had graduated, but returned to improve marks*	☐
	b. Number who had not graduated	☐
2.	Number of 5th year students who left after 1st semester:	☐
	a. Number who had graduated, but returned to improve marks*	☐
	b. Number who completed graduation requirements	☐
	c. Number who left during or after 1st semester without completing graduation requirements	☐
3.	Number of 5th year students enrolled in second semester	☐

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*If graduates returned for other reasons such as taking an additional course(s), include them in this category.

Thank you for taking the time to complete this questionnaire.
Please return it by **February 27, 2004** to:

Grant Clarke
Director
Secondary School Policy and Programs Branch
900 Bay Street, 8th Floor Mowat Block
Toronto, Ontario
M7A 1L2

Fax: 416-325-2552